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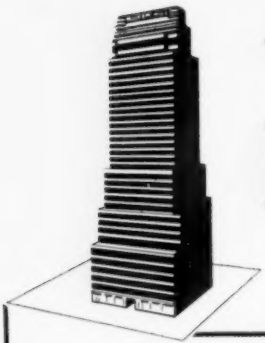

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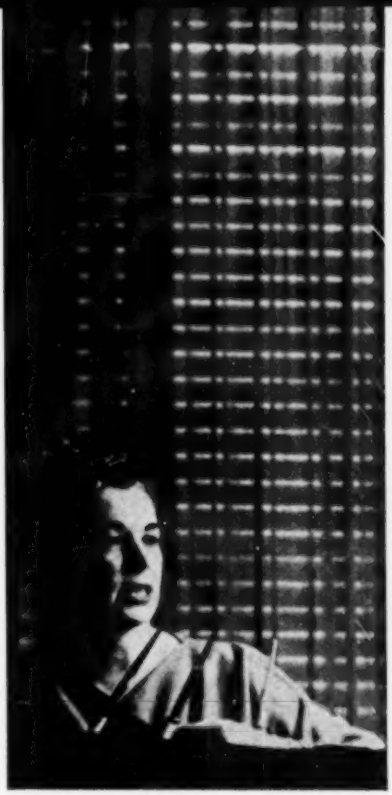

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1961

MAY

AMERICAN ASSOCIATION FOR THE HISTORY OF MEDICINE, Shoreland Hotel, Chicago, May 18-20. Dr. John B. Blake, c/o Smithsonian Institution, Washington 25, D. C., Secretary-Treasurer.

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AMERICAN ORTHOPAEDIC ASSOCIATION (members and guests), The Ahwahnee, Yosemite, Calif., May 22-25. Dr. Lee Ramsay Straub, 535 E. 70th St., New York 21, Secretary.

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AMERICAN DERMATOLOGICAL ASSOCIATION, INC. (members only), Castle Harbour Hotel, Tucker's Town, Bermuda, June 16-20. Dr. Wiley M. Sams, 25 S. E. Second Ave., Miami 32, Fla., Secretary.

AMERICAN MEDICAL ASSOCIATION, ANNUAL MEETING, New York City, June 25-30. Dr. F. J. L. Blasingame, 535 N. Dearborn, Chicago 10, Executive Vice-President.

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SOCIETY OF NUCLEAR MEDICINE, Penn Sheraton Hotel, Pittsburgh, June 14-17. Mr. Samuel N. Turiel, 430 N. Michigan Ave., Chicago 11, Executive Administrator.

JULY

INTERNATIONAL COLLEGE OF SURGEONS, NEW ENGLAND REGIONAL MEETING, Chatham Bars Inn, Chatham, Cape Cod, Mass., July 1-4. Dr. M. Leopold Brodny, 4646 N. Marine Dr., Chicago 40, Treasurer.

AUGUST

AMERICAN CONGRESS OF PHYSICAL MEDICINE AND REHABILITATION, Sheraton-Cleveland Hotel, Cleveland, Aug. 27-Sept. 1. Dorothea C. Augustin, 30 N. Michigan Ave., Chicago 2, Executive Secretary.

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OCTOBER

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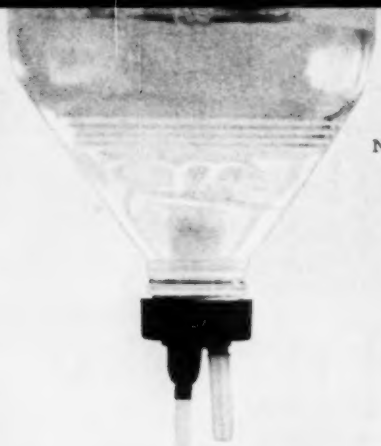

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The Journal of MEDICAL EDUCATION

VOLUME 36 • NUMBER 5 • MAY, 1961

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The Journal of **MEDICAL EDUCATION**

VOLUME 36 • NUMBER 5 • MAY, 1961

A Modern Medical Center Is Born

KENNETH E. PENROD*

West Virginia University Medical Center,
Morgantown, West Virginia

At a time of accelerated medical center development—some recently completed, some in process, and many more in stages of projection—it seems in order to document in some detail one such developmental program that has now evolved to the functional stage. While perhaps there is not much that is unique about the development of the West Virginia University Medical Center, it does represent *a* (but not necessarily *the*) way such a major program can be accomplished by a group of determined people in a geographic area not particularly noted for its economic resources.

Many segments of society in West Virginia favored the development of a medical center, but the most active group was the West Virginia State Medical Association. With the aid of the state's dentists, nurses, pharmacists, and other health personnel, they brought the need forcefully to the attention of the Legislature immediately after the close of World War II. In the ensuing discussion the President of the University, Dr. Irvin Stewart, publicly asserted that unless a sound and continuing method of financing the project could be found which would not impose further drains on an already inadequately financed university, West Virginia University could not accept the new responsibility. Convinced of the soundness of this reasoning, the 1951 session of the West Virginia Legislature passed, on March 9, 1951, House Bill No. 268, which read in part: "For the purpose of providing revenue for the construction, maintenance and operation of a four-year school of medicine, dentistry and nursing of West Virginia University, an excise tax is hereby levied and imposed on and after midnight of the last day of June, 1951, upon the sale, use, handling or distribution of all bottled soft drinks and soft drink syrups, whether manufactured within or without this state, as follows: On each bottled soft drink, a tax of one cent on each sixteen fluid ounces, or fraction thereof, contained therein. On each gallon of soft drink syrup, a tax of eighty cents, and in like ratio on each part gallon thereof, and on each ounce of dry mixture used for making soft drinks, a tax proportionate to that levied on soft drink syrup, in a ratio to be determined by the commissioner." The same bill provided further that "all revenue collected by the commissioner under the provisions of

* Vice President, Medical Center.

this article, less such costs of administration as are hereinafter provided for, shall be paid by him into a special medical school fund, which is hereby created in the state treasury, to be used solely for the construction, maintenance and operation of a four-year school of medicine, dentistry and nursing, as otherwise provided by law." The very considerable advantages of this creation of a special fund will be pointed out later.

In the first year of its operation the soft drinks tax produced a net income of $2,939,674 for the medical center. By virtue of the dedicated nature of the tax, money was made available to begin definitive planning immediately following the effective date of the legislation.

Accordingly, in the summer of 1951, (*a*) a building committee was selected from among the faculty of the then extant 2-year medical school, (*b*) consultants for dentistry and nursing were employed, (*c*) discussions were initiated with health professions educators, and (*d*) the architectural firm of Schmidt, Garden, and Erikson of Chicago was retained to prepare an over-all plot plan for the site and preliminary plans for the building.

Meanwhile, members of the University Board of Governors and the Faculty Building Committee made a series of visits to other institutions to broaden their scope of sophistication and observe new practices. In January, 1952, the architectural firm of C. E. Silling and Associates, of Charleston, West Virginia, was selected as principal architect with Schmidt, Garden and Erikson of Chicago as associate architects. The firm of James A. Hamilton Associates, Hospital Consultants, of Minneapolis, Minnesota, was retained as consultants to appraise the master plot plan of the selected site, to provide impartial assessment of the state's needs in the various health fields, and to assist in the development of a program for each contemplated school and each organized subdivision.

In June, 1952, Hamilton Associates presented a report of their extensive survey of the state which was made to determine the existing need for physicians, dentists, nurses, and other health professions personnel, and to determine the community needs for hospital beds as a part of the new center. Significantly, they concluded that the area, and particularly the 385,000 persons located within a radius of 30 miles of Morgantown, could well support a hospital of sufficient size to satisfy teaching needs. The accuracy of this conclusion is currently being borne out, for in the first 6 months of operation the service demands of the hospital have exceeded the expectation, and have at times severely taxed the preparations.

On the basis of the Hamilton Report data, along with other considerations including available funds, the Board of Governors in the fall of 1952 made the following fundamental decisions: (*a*) Construction should provide facilities for entering classes of 60 medical, 50 dental, 50 nursing, 40 pharmacy, 25 medical technology, twelve occupational therapy, twelve physical therapy, twelve x-ray technology, and six dietetics students. The total student enrollment, including graduate students in the basis sciences, interns and residents, would thus be approximately 1,200.[1] (*b*) The hospital design should provide for approximately 520 beds, of which about 330 would be general acute, 140 chronic, and 50 rehabilitation cases. Out-patient clinics

[1] While the enabling act passed by the Legislature does not use the term "medical center," such an interpretation was early applied. In accordance with modern health education practices the application of the legislation was extended by consent from ". . . a four-year school of medicine, dentistry and nursing" to embrace all the above noted educational programs.

capable of handling approximately 45,000 visits per year should be provided. (*c*) The over-all structure should be integrated under one roof to better facilitate exchange between the clinical and preclinical staffs, between laboratory workers and clinicians, and among staff and students of the various schools. (*d*) The construction should be programmed in accordance with availability of funds and with consideration of the developing teaching schedules. First the heating plant should be constructed, then the basic sciences facilities, and finally the hospital.

With these data in hand the architects could complete plans and specifications for the heating plant. In December, 1952, 17 months after financial approval of the center was obtained, actual construction was begun. The initial cost of the heating plant project was $1,092,680, with a subsequent expenditure of $331,858 to complete and equip this part of the project.

Meanwhile, plans were finalized for the teaching laboratories and classrooms building. This unit, comprising 555,000 square feet of floor space in a five-story building, was begun in the summer of 1954 and completed and ready for occupancy in the summer of 1957. The cost of this building was $13,782,625, including fixed equipment.

The hospital, built in the form of an offset cross and attached to the basic sciences portion, has twelve floors, eight of which have patient beds. There are a total of 522 beds, 563,000 square feet of floor space, and the cost was $15,897,777, including fixed equipment. The hospital construction was begun in the summer of 1957 and completed in January, 1960.

Approximately 40 per cent of the patient care portion of the hospital was furnished during the spring of 1960. It opened for patients in August, and the first class of third-year medical students was enrolled in September. Thus, 9 years elapsed between the passage of the enabling legislation, which triggered definitive planning, and the completion of construction. A beneficial result of this prolonged period was that the construction costs were spread over 9 years. In that time the total net income from the soft drinks tax amounted to $28,755,321. On two occasions the construction costs outstripped the income, necessitating additional legislative appropriations from general funds totaling $2.8 million. Federal contribution to this program, in the form of Hill-Burton funds and a Health Facilities Grant, has amounted to 2.8 million. Hence, of the total project cost of $31 million, all but $5.6 million has come from the soft drinks tax.

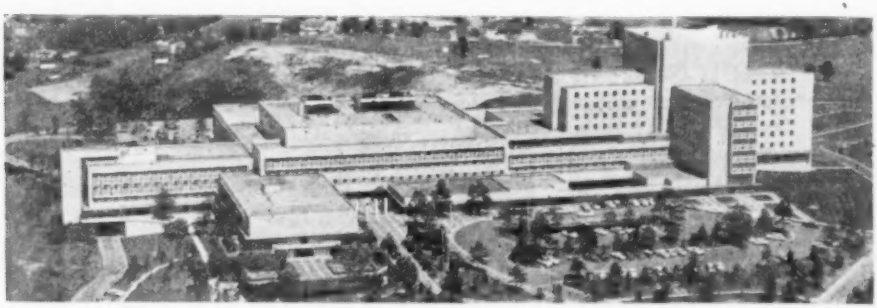

FIG. 1.—West Virginia University Medical Center.
Left, basic sciences portion; right, hospital.

Careful planning and projecting of the teaching programs were necessary over the formative years of this medical center in order to have construction precede demand. Instruction in the 2-year basic science medical school continued in the old quarters, with 31 students admitted per year, until the summer of 1957. At that time the new basic science building was occupied and enrollment increased to 40. In the fall of 1958 42 students were accepted in the School of Medicine with the anticipation that this would be the first class to have the opportunity to complete all 4 years at West Virginia University. However, assurances were necessary that, in the event the hospital was not completed in time for the fall of 1960, all eligible students would be placed in third-year classes elsewhere. In the face of a long-standing tradition of transfer, principally to Medical College of Virginia with whom West Virginia has long maintained a financial agreement to accept up to 25 third-year students each year, approximately half of that class departed at the end of the second year. The remainder now comprise the third-year class and are expected to constitute the first graduating class of physicians in 1962.

In the early planning of the basic sciences portion of the building, the decision was made to incorporate the dental clinics, in juxtaposition to the subsequent hospital portion. Hence, it was possible to program the developing dental school a little ahead of the medical school. A first class of dental students was accepted for the fall after occupancy of the new building, 1957, and this class will become the first graduating class of dentists in 1961.

The newest school of the group is that for nurses. Although a portion of the earlier completed basic sciences building was designed for nursing education the actual beginning of this school awaited the completion of the hospital. In the fall of 1960 a first class of nursing students was admitted, and they will receive degrees in 1964.

A word of explanation concerning the School of Pharmacy is in order. No mention is made of this school in the legislative bill referred to above, but it is now an integral part of this center. Pharmacy education at West Virginia University dates back to 1914, when it was established as a department of the School of Medicine. Since 1936 it has been a separate college, later called school, in the university. Hence, it was not included in the new developments envisioned by the Legislature in 1951, but subsequently the decision was made by the university to provide space for and include the School of Pharmacy in the medical center. After completion of the basic sciences building this school was moved into the center in 1958, but its operating funds have continued to come from the general university budget.

By the spring of 1961, 10 years after the actual beginning of the medical center project by legislative enactment, the construction has been completed, much of the equipment has been purchased, most of the staffing has been accomplished, and the phase of "maintenance and operation" has begun with no carry-over of construction debt.

As mentioned earlier, the unique and farsighted method of financing this very considerable project has had salubrious consequences from many standpoints. With a reasonable foreknowledge of the available funds, intelligent planning has gone forward uninterrupted. By virtue of the dedication of the soft drinks tax income, it has been possible to carry funds forward from one fiscal year to the next without interruption. Much legislative time has been saved each year by avoiding the necessity for critical review of the needs for the forthcoming

year, together with concern about the source of such money. Also, this has resulted in a great saving of university administrators' time in detailed budgetary programming far ahead for legislative request. Finally, it has resulted in much flexibility in the use of funds, with many resultant savings; and, probably most important, at no time has the budget of the parent university been compromised in favor of the new medical center.

By providing for continuing financing of the medical center "maintenance and operation" through the dedicated tax, most of the above benefits can continue to be realized. As long as understanding prevails that this is basically an educational support fund and should not be dissipated in the form of welfare support of indigent hospital patients, this tax represents one of the most significant forward steps in the financing of health education of our day. From the standpoint of the university administration there is yet another tremendous benefit that might not be realized by outsiders. A vastly better *esprit de corps* among university personnel results when the large and costly medical center is not in competition with the remainder of the university for funds appropriated annually from general revenue of the state.

SUMMARY

On March 9, 1951, the West Virginia Legislature authorized the establishment in West Virginia of a medical center having 4-year schools of medicine, dentistry, and nursing, and provided for their continued financing by establishing a tax on soft drinks, the income from which was to be used solely for the "construction, maintenance and operation" of these schools.

In the 10 years since, much has been accomplished. The construction of a $31 million physical plant has been completed, and most of the furnishings have been procured. The School of Medicine has three classes in residence, and the School of Dentistry will graduate its first class in June, 1961. The Nursing School has been established with a first-year class, and the entire School of Pharmacy has been moved into the Center. A program in Medical Technology will graduate nine students in June. The University Hospital has been admitting patients since August, 1960.

A great many advantages accrue from the establishment of a dedicated tax for the development and operation of a medical center within a university. West Virginia University has been fortunate in realizing these advantages made possible by an understanding Legislature.

The 1960 Medical School Graduate: His Biographical History*

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INTRODUCTION

In 1956 the A.A.M.C. Division of Basic Research launched a long-range investigation of the relationships among characteristics of medical students, the medical school environment, and various criteria of student performance. This study was stimulated by the need expressed by many medical educators to know more about the abilities, interests, personality characteristics, attitudes, value systems, etc., of their students per se, and a need to know how these various personal characteristics relate to student performance in different types of medical schools, internships, residencies, and in practice.

The initial phase of the program consisted of the administration of a battery of tests and questionnaires to the entire first-year class at 28 United States medical schools (approximately 2,500 students) in the fall of 1956. Subsequently, medical school grades, ratings made by fellow students, and scores on National Board Examinations were collected for these students. During the fourth year (1959–60) the original test battery was readministered, a second set of peer ratings was obtained, and additional test and questionnaire data were collected. More information will be collected during the internship and residency periods, and still more will be obtained after these students have entered practice.

The investigation reported here is one small segment of the research that will ultimately result from this wealth of data. Its purpose is to describe the personal, social, and educational background of the 1960 graduate, and to investigate the relationships between these biographical factors and the student's choice of career at the end of his senior year in medical school.

This study is based on a sample of 1,000 students selected at random from each of 25 of the medical schools participating in the research programs.[1] The data used in this investigation were obtained from biographical questionnaires administered at the beginning of the first year and at the end of the fourth year in medical school.

RESULTS AND DISCUSSION

Career plans.—The data were first analyzed to determine the specific career choices made by these medical students, the time at which choices were made, and the extent to which students were satisfied with them. Table 1 contains information concerning type of career chosen.

About one student in five indicated general practice as the type of medical career that he eventually intends to

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[1] Fourth-year data were available for only a small proportion of the students at the remaining three schools at the time the study was done. These schools, therefore, were omitted from this investigation.

TABLE 1
CAREER CHOICES OF 1960 SENIORS AND 1959 INTERNS*

CAREER CHOICE	1960 SENIORS N	1960 SENIORS Per cent	1959 INTERNS N	1959 INTERNS Per cent
General practice	199	20	560	21
Specialty practice	397	40	1320	50
Combined practice plus research-teaching	356	35	643	25
Research-teaching	30	3	49	2
Other or no response	18	2	44	2
Total	1000	100	2616	100

*Data on 1959 interns were obtained from Chapter 1 of the *1959 Teaching Institute Workbook*, A.A.M.C., Evanston, Illinois, 1959.

enter. About 40 per cent planned to enter straight specialty practice careers, another 36 per cent planned to combine a specialty practice with research and teaching, and about 3 per cent planned to devote themselves exclusively to teaching and/or research. Similar data on career choices of 1959 interns were available from the data collected for the 1959 A.A.M.C. Teaching Institute (1). A comparison of these intern choices with the senior data showed about the same proportion of both groups choosing general practice and straight teaching-research careers, but there was a considerable difference in the proportions choosing straight specialty practice and specialty practice plus research and teaching.

Among the 1959 interns, about 50 per cent planned to enter straight specialty practice careers, and only 25 per cent planned to combine specialty practice with research and teaching. The over-all percentage planning some type of specialty practice career remained about the same, roughly 75 per cent in both groups.

The apparent increase in the proportion of students planning to combine specialty practice with research and teaching may simply reflect the tendency on the part of some students to emulate their instructors while they are still in medical school and may have little relationship to their ultimate choice of career. On the other hand, there may be a real shift in the proportion of students interested in academic medicine. Information to be collected on the career choices of these 1960 graduates after their internship year should help to clarify this question.

Table 2 shows the proportion of students who selected specific types of careers at various points in time.

About one student in five had decided upon the specific type of medical career that he reported as a senior before he entered medical school, and about one in four had decided before the third year in medical school. Students who reported general practice as their present career choice were more likely to have

TABLE 2
TIME OF DECISION ABOUT SPECIFIC MEDICAL CAREER

CAREER GROUP	TIME OF DECISION Before med. school (Per cent)	First 2 years of med. school (Per cent)	Last 2 years of med. school (Per cent)	No response (Per cent)	TOTAL (Per cent)
General practice	42	6	51	1	100
Specialty practice	8	6	85	1	100
Combined practice plus research-teaching	11	11	76	2	100
Research-teaching	20	13	67	0	100
Total sample	17	8	73	2	100

TABLE 3
SATISFACTION WITH PRESENT CAREER CHOICE

Career group	Satisfied with present choice (Per cent)	Would change present choice (Per cent)	No response (Per cent)	Total (Per cent)
General practice	81	18	1	100
Specialty practice	92	7	1	100
Combined practice plus research-teaching	95	5	0	100
Research-teaching	90	10	0	100
Total sample	90	9	1	100

made this choice before entering medical school than those planning to enter some type of specialty practice or academic career.

From these data it is clear that, at least until the clinical years, the medical student's career plans are highly flexible; almost three-fourths of the group did not decide upon the specific type of medical career indicated in Table 2 until the last two years in medical school, and many of these senior choices will undoubtedly be changed during the internship period.

In an attempt to measure the extent to which students were satisfied with their choice of career, the following question was asked: "If all medical careers required the same amount of training beyond the M.D. degree, and if your standard of living would be the same regardless of the type of medical career you entered, would you still choose the type of career you have indicated?" Table 3 shows the response to this question for the various career groups.

About nine out of ten students reported that, even under favorable financial and training conditions, they would not change their career choice. The group most likely to change was the general practice group, but even here eight out of ten students did not wish to select another type of career.

Table 4 contains information about occupations that these students had seriously considered as alternatives to medicine.

Only about one-fourth of the group said that they had never seriously considered any occupation other than medicine. Of the three-fourths who had considered another field, the most frequently mentioned areas were college or university teaching, engineering or architecture, and scientific research.

The groups planning some type of aca-

TABLE 4
OTHER OCCUPATIONS CONSIDERED BY MEDICAL STUDENTS

	Occupation								
Career group	College or univ. teaching (Per cent)	Engineering Architecture (Per cent)	Scientific research (Per cent)	Law (Per cent)	Business (Per cent)	Elemen. or H.S. teaching (Per cent)	Ministry (Per cent)	All others (Per cent)	Never seriously considered another occupation (Per cent)
General practice	19*	20	11	9	10	11	9	27	25
Specialty practice	13	23	13	11	9	8	6	21	30
Combined practice plus research-teaching	28	17	24	15	8	7	6	21	25
Research-teaching	40	17	30	13	3	7	7	30	13
Total sample	21	20	17	12	9	9	7	22	26

* Students were asked to indicate *all* of the other occupations they had seriously considered. Therefore, the percentages in each row add to more than 100 per cent.

TABLE 5
FATHER'S OCCUPATION

FATHER'S OCCUPATION	PER CENT OF EACH CAREER GROUP				
	General practice	Specialty practice	Combined practice plus research-teaching	Research-teaching	Total sample
Professional (excluding physicians)	11	18	19	33	17
Proprietor	13	15	16	7	15
Physician	8	12	14	7	12
Manager-official	12	12	12	7	12
Clerical-sales	10	8	11	10	9
Skilled labor	10	10	8	10	9
Unskilled labor	11	7	6	3	7
Farm	6	6	2	7	5
Semiprofessional-technical	6	2	2	3	3
Other	10	8	9	10	9
No response	3	2	1	3	2
Total	100	100	100	100	100

demic career differed somewhat from those planning to enter full-time practice. The research-teaching groups expressed greater interest in college or university teaching and in scientific research than the practice-oriented groups, and somewhat less interest in engineering and architecture.

Family background.—One of the major biographical areas to be studied was the student's family background. Data were collected on father's occupation, educational level of both parents, size of family, and size of community in which the student was reared.

From Table 5 it appears that father's occupation varies considerably among this sample of students.

The largest single group of fathers (about 17 per cent) were professional men, but not physicians. The next largest group (about 15 per cent) were proprietors. Only about 12 per cent were physicians, and an equal number were managers or officials.

About four in ten of the students who chose full-time research-teaching careers had fathers who were professional men. However, only 7 per cent were physicians. On the other hand, among those choosing a combination of specialty practice plus teaching and research, about one in three had a father in some profession and about 15 per cent were physicians. The proportion of fathers in the professions was smallest for the group choosing general practice.

In terms of the intellectual environment from which these students came, (Table 6) it appears that a majority had rather favorable backgrounds. Over half of the sample had fathers who had completed at least some college work, and about 27 per cent had fathers who held a professional degree. It is also noteworthy that the mothers of these students were relatively well educated. About 6 per cent held professional degrees, and half had more than a high school education. However, about one student in six had a father whose formal education ended before senior high school, and about 12 per cent had mothers who never attended high school.

Smaller proportions of fathers with professional degrees were found among general practice and straight specialty practice groups than among students planning to enter either full- or part-time academic careers.

TABLE 6
FATHER'S EDUCATION—HIGHEST LEVEL ATTAINED

CAREER GROUP	Professional degree (Per cent)	1-4 years college (Per cent)	2-4 years high school (Per cent)	9th grade or less (Per cent)	No response (Per cent)	Total (Per cent)
General practice	18	25	29	20	8	100
Specialty practice	26	23	27	17	7	100
Combined practice plus research-teaching	32	26	20	16	6	100
Research-teaching	33	27	17	10	13	100
Total sample	27	24	24	17	8	100

As shown in Tables 7 and 8, these students tended to come from rather small urban families, particularly the group planning to enter a combined specialty practice plus research-teaching career. Fifty per cent of the total sample had one sibling or were only children, and 70 per cent had spent most of their lives in cities.

About six out of ten students planning a combined practice plus academic career were only children or had one sibling, and over 80 per cent of this group came from urban areas. On the other hand, of those planning a general practice career, only about half came from cities having over 10,000 population, and six out of ten had more than one sibling.

Educational background.—As one might expect, these students did well academically prior to medical school. Table 9 shows their performance in high school. About one in three were in the upper 2 per cent of their high school classes and 87 per cent were in the upper quarter. Even though almost all of these students come from the upper quarter of their high school classes, the proportion who were in the upper 2 per cent was larger among the groups planning some

TABLE 7
NUMBER OF SIBLINGS

CAREER GROUP	None (Per cent)	One (Per cent)	Two (Per cent)	Three (Per cent)	Four or more (Per cent)	No response (Per cent)	Total (Per cent)
General practice	12	27	23	13	18	7	100
Specialty practice	16	33	22	10	13	6	100
Combined practice plus research-teaching	18	41	21	8	5	6	100
Research-teaching	23	28	13	13	10	13	100
Total sample	16	34	22	10	11	7	100

TABLE 8
SIZE OF HOME COMMUNITY

CAREER GROUP	Over 100,000 (Per cent)	10,000-100,000 (Per cent)	1,000-10,000 (Per cent)	Under 1,000 (Per cent)	No response (Per cent)	Total (Per cent)
General practice	30	22	25	16	7	100
Specialty practice	48	21	14	10	7	100
Combined practice plus research-teaching	66	16	8	3	7	100
Research-teaching	50	13	7	17	13	100
Total sample	50	20	14	9	7	100

TABLE 9
HIGH SCHOOL RANK

Career group	Upper 2% (Per cent)	Upper 5% (Per cent)	Upper 15% (Per cent)	Upper 25% (Per cent)	Upper 50% (Per cent)	Lower 50% (Per cent)	No response (Per cent)	Total (Per cent)
General practice	23	20	24	14	15	3	1	100
Specialty practice	28	20	23	18	9	2	0	100
Combined practice plus research-teaching	34	19	23	13	9	1	1	100
Research-teaching	43	27	13	7	7	0	3	100
Total sample	30	20	22	15	10	2	1	100

type of academic career than among the practice-oriented groups.

Unfortunately, comparable data regarding achievement in college were not collected. However, information about the kinds of courses preferred in college and the amount of formal training in mathematics taken was obtained. These data are summarized in Table 10 and 11. The most preferred premedical area was biological sciences, humanities was second, and physical sciences third. College mathematics courses were not particularly popular; about two-thirds (64 per cent) of the group took no more than elementary college mathematics, and only about one student in fourteen took one or more advanced courses beyond calculus. Languages and social sciences were the least-preferred areas.

Noteworthy differences between career groups with respect to curriculum preference were the following:

1. Students choosing general practice and straight specialty practice indicated a stronger preference for the biological sciences in college than the groups planning to enter either full- or part-time academic medicine.

2. The group planning to enter full-time research and teaching showed a stronger preference for the physical sci-

TABLE 10
COLLEGE CURRICULUM PREFERENCES

Career Group	Biological sciences (Per cent)	Humanities (Per cent)	Physical sciences (Per cent)	Social sciences (Per cent)	Mathematics (Per cent)	Languages (Per cent)
			MOST PREFERRED COLLEGE COURSES			
General practice	51*	24	24	10	14	11
Specialty practice	54	28	23	14	10	10
Combined practice plus research-teaching	39	42	22	15	8	7
Research-teaching	30	33	37	17	3	7
Total sample	47	32	23	14	10	9
			LEAST PREFERRED COLLEGE COURSES			
General practice	4*	12	16	28	17	30
Specialty practice	3	9	16	27	21	34
Combined practice plus research-teaching	6	4	17	23	18	36
Research-teaching	10	17	13	27	10	30
Total sample	4	8	16	26	19	34

* Students checked more than one answer to this question, and, therefore, percentages in each row total more than 100 per cent.

TABLE 11
AMOUNT OF FORMAL TRAINING IN MATHEMATICS

Career group	High school math only (Per cent)	One or more elementary coll. courses (Per cent)	Introductory calculus (Per cent)	One or more courses beyond intro. calculus (Per cent)	Total (Per cent)
General practice	5	64	25	6	100
Specialty practice	10	63	22	5	100
Combined practice plus research-teaching	10	46	35	9	100
Research-teaching	7	23	53	17	100
Total sample	9	55	29	7	100

ences and took more formal training in mathematics than any other career group.

Marital status.—As shown in Table 12, about six out of ten of these students were married, 38 per cent were single, and 2 per cent were either divorced, widowed, or separated. Of those who were married, only about four in ten were married at the time they entered medical school. A student who was not married at the time he entered medical school had about a 50-50 chance of remaining unmarried until he graduated.

Marital status and time of marriage varied considerably among the groups choosing different types of medical careers. For example, about three-fourths of those choosing general practice were married, but only slightly more than half of those planning to enter a practice plus research and teaching career were married. Also, it appears that students planning to enter general practice tend to marry earlier than other career groups. Almost four out of ten (38 per cent) who chose general practice were married at the time they entered medical school, whereas only about 20 per cent of the groups planning some type of specialty practice were married when they began their medical education.

Slightly more than half (about 53 per cent) of the married students reported one or more children, and over half of these offspring were born after the parent had entered medical school. Among the various career groups, about two-thirds of the general practice group reported one or more children, as opposed to about half of the straight specialty practice group and only 39 per cent of the practice plus research and teaching group.

Financial status.—Data on financial status are summarized in Table 13. About four students in ten reported that they were in debt (i.e., their total liabilities exceeded their total assets) at the time they graduated from medical school. For this group, the median amount of indebtedness was between $1,000 and

TABLE 12
MARITAL STATUS

Career group	Single (Per cent)	Married before med. school (Per cent)	Married during med. school (Per cent)	Divorced, separated, widowed (Per cent)	Total (Per cent)
General practice	26	38	35	1	100
Specialty practice	40	20	38	2	100
Combined practice plus research-teaching	42	20	36	2	100
Research-teaching	33	30	34	3	100
Total sample	38	24	36	2	100

TABLE 13
FINANCIAL STATUS

CAREER GROUP	Not in debt (Per cent)	In Debt: Less than $1,000 (Per cent)	$1,000-2,999 (Per cent)	$3,000-4,999 (Per cent)	$5,000-9,999 (Per cent)	$10,000 or more (Per cent)	TOTAL (Per cent)
General practice	48	9	14	9	15	5	100
Specialty practice	55	10	16	8	8	3	100
Combined practice plus research-teaching	61	9	16	8	4	2	100
Research-teaching	50	10	20	10	3	7	100
Total sample	56	9	16	8	8	3	100

$3,000, and about one student in ten was in debt to the extent of $5,000 or more.

Again differences were found between groups selecting different types of medical careers. The proportion of students in debt was somewhat higher among the groups planning to enter general practice or full-time academic careers than among the groups planning some type of specialty practice, and the proportion who were $5,000 or more in debt was considerably higher in the group planning to enter general practice than in any other career group.

SUMMARY

In summary, the average 1960 medical school graduate might be described as follows:

1. He comes from a wide variety of home situations, but generally from a small urban family with parents who are above average intellectually.

2. He did well academically in high school. As an undergraduate, he preferred courses in the biological and physical sciences and the humanities, but showed little interest in the social sciences or languages. Even though mathematics was not one of his most preferred areas, he took at least one introductory college course in this subject.

3. He chose medicine after rejecting a career in some other profession, probably college teaching, engineering, or scientific research in a field other than medicine. His present plans for a specific type of medical career were probably made during the past two years.

4. He is probably married, and, if so, he has about a 50-50 chance of having one or more children.

5. He has about a 50-50 chance of being in debt, probably somewhere between $1,000 and $3,000.

Major differences found among groups planning to enter different types of medical careers were the following:

1. Students selecting a general practice career appear to come from families somewhat less well situated financially, they tend to marry earlier, and to have more children than students choosing either specialty practice or academic careers.

2. The group planning straight specialty practice careers is similar to the general practice group with respect to a preference for biological sciences in college and a lack of interest in mathematics. Noteworthy differences between these two groups appear in the areas of marital and financial status and, to a lesser degree, in family background.

3. The group planning to combine specialty practice with an academic career stands between the straight specialty practice group and the full-time academicians on many personal history dimensions. Examples are: amount of training in mathematics, interest in the biological sciences during college, preference for research and teaching in general, and time of decision about a specific medical

career. The largest proportion of physician fathers are found in this part-time academic group, and these students are more likely to come from small urban families than any other group. A smaller percentage are married, they have fewer children, and are less likely to be in debt than any other group.

4. The relatively small group planning a full-time academic career is distinguishable from the other career groups in terms of more training in mathematics, greater interest in the physical sciences during college, a stronger interest in teaching or research careers in general, and a higher proportion of fathers who are professional men but not physicians.

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An Elective Seminar in Neuropsychiatry

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The Tutorial Program at Harvard Medical School, begun in 1923, was designed to encourage and foster student interest in research. Villee (2) presents an interesting account of its history and development through 1956. In 1957, some second-year medical students felt that it might be fruitful to organize a tutorial or elective seminar whose main interest would be the problems of behavioral science.

The interests of this seminar were as diversified as its members. They ranged from psychoanalysis to neurochemistry; from social psychology to neuroendocrinology; from cybernetics to genetic psychology; from neurophysiology to sociology. The thread which held them together was a profound interest in the behavioral aspects of the organism.

The two faculty advisors, whose services the group was lucky enough to obtain, came from broad backgrounds in neurology and psychiatry. One was a practicing psychoanalyst and the coordinator of, and lecturer in, the second-year course in psychopathology at the medical school. The other had strong interests in the biological aspects of behavior. He was engaged in neurophysiological research as well as clinical psychiatry at one of the teaching hospitals.

At this writing, the seminar has been meeting for 2 years. During the first year, three different formats were utilized. There was a strong emphasis on a traditional research seminar format. This consisted of one member of the group presenting a discussion of a topic which interested him and which he had pursued by research, reading, or clinical experience. Seven meetings were conducted in this manner, with the material presented by the speaker and then discussed by the group. An additional eighth meeting followed this format, different only in that two members of the group collaborated in its presentation. A ninth meeting was run as a discussion group, with all the members participating in the consideration of the application of the scientific method to problems of research in neuropsychiatry. A guest moderator was on hand to help direct the discussion. A tenth meeting consisted of a didactic presentation by a visiting lecturer at Harvard. This was followed by group discussion, and was preceded, on an informal basis, by cocktails and dinner. The following year the original thirteen members were joined by twelve members of the new second-year class. The members felt that the most fruitful format to employ was that of inviting a guest speaker who would discuss a topic of interest, in an informal manner, during the first hour of the meeting. This was followed by discussion between the speaker and the members of the seminar.

At the conclusion of these meetings, it was decided to evaluate (if only in a gross way) our experience in this kind of seminar at this stage of our medical development. We wished to assess the place that such a seminar had in our medical training, with an eye to seeing how significant this experience was, and in what ways it was useful to us. This provides a possible way of learning more about how to improve undergraduate

* Class of 1961.

psychiatric teaching, especially of those students who have some background or interest in aspects of behavioral science. The remainder of this paper is devoted to a discussion of our experience with this in mind.

DISCUSSION

An ever increasing number of students enter medical school today with some background in psychiatry and with more or less well formed plans concerning careers in this specialty. Most medical schools have markedly increased the amount of time in the regular curriculum which is devoted to psychiatric teaching. The elective seminar with which this paper deals, while in many ways unique, is somewhat similar to other seminars which have recently been organized at other medical schools (1). It is probable that the same motivating factors can be seen behind the organization of all these groups. In brief, it would seem that all these students are seeking further contact with this field while in medical school, as well as association with their peers and teachers who have similar interests. It is our feeling that a seminar such as we have described can adequately perform these functions and that it can be a valuable supplement to the regular medical school curriculum.

This seminar would appear to be unique in that all the impetus for its organization and functioning came from its student members. Whereas the faculty advisors always gave generously of their time and talents, it was the students who organized the meetings. We feel that this played an important part in the success of the sessions. It would seem, if one were contemplating introducing a similar elective seminar into the curriculum of a medical school, that this observation might be borne in mind. In this way the organization of the seminar can best be tailored to the various and changing needs of its members. We found that we could utilize both student and outside speakers, depending on the interests of the group at that moment. We could then modify the format of the meetings as this became necessary.

It is difficult for us to assess the value of these meetings at this early point in our training. Members of the seminar have indicated that it has had a profound effect on most of them. Several members felt that it had strongly affected their decision to become psychiatrists. Some described it as being "broadening and interesting." Most members felt that there was surprisingly adequate communication between the many viewpoints represented and that the meetings served to point out the necessity for organizing and communicating ones formulations. One member probably summed up the feelings of most of the group when he said: "I gained familiarity with some of the frontiers and byways of psychiatry, off the beaten path of medical school courses in this subject, and thereby gained a broadened perspective of the field which I think was valuable in directing my thinking in regard to a career; and it stimulated my thinking on theoretical matters in psychiatry."

CONCLUSIONS

A significant number of medical students are interested in the subject matter of the behavioral sciences. As this number continues to grow medical educators are seeking ways of meeting these interests. The elective seminar which we have discussed would seem to have proved itself a valuable adjunct to the regular curriculum. At Harvard Medical School it represents a logical step in the evolution of the Tutorial Program, designed to meet the changing needs and interests of the student body.

As a result of our experience, we are able to make the following suggestions

concerning the organization of such a seminar. (*a*) Most of the impetus for its organization and functioning should come from the student members. (*b*) The structure of the seminar should be sufficiently flexible to allow for changes as the interests and needs of the members change. (*c*) The faculty advisors have a profound effect on the student members and, as such, should be interested teachers, with broad backgrounds in the many facets of behavioral science.

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The Double-Blind Drug Study as a Teaching Device*

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The double-blind design has long been recognized as a valuable approach to the evaluation of pharmacological agents (1, 2). Much less known, however, is its usefulness as a teaching device. The present report concerns a year's experience with the use of a double-blind drug study program as an integral part of a senior year medical school psychiatric teaching program. Such a study has proved to be a decidedly worth-while pedagogic instrument and can accomplish multiple objectives in a manner particularly acceptable to medical students: it affords closer acquaintance with scientific methodology and thus better equips the future physician for critical evaluation of published reports. It familiarizes the student with the complexities of drug and placebo effects in clinical practice. It allows a significant reappraisal of diagnosis in the light of reaction to medication, and it serves as a bridge between preclinical science and less concrete psychological concepts.

Description of study.—As a regular part of the senior year, every student at the University of Pennsylvania School of Medicine is assigned to spend 12 weeks, 2 mornings each week, in the psychiatric out-patient clinic. During this time the students see patients once weekly in supervised psychotherapy. They observe, via a one-way screen, continued psychotherapy demonstrated by the teaching staff; they evaluate a sizable number of new psychiatric patients; and they follow those new patients who may benefit from short-term management. It is in this last part of the program that drugs are most actively used, although they are also widely used in conjunction with more formal psychotherapy. The over-all goal of this program is to make the young physician familiar with the diagnosis and treatment of psychiatric problems in out-patients. In the management of many of these patients he learns to rely not only upon the insight afforded by current psychodynamic theory, but also upon the increasing amount of data accumulated in psychopharmacology.

In our particular arrangement two parallel drug evaluations were conducted simultaneously. All patients, whenever possible, were divided according to chief target symptoms into two groups. One group was made up of those primarily suffering from anxiety and the other one of those manifesting predominantly depressive symptomatology. It is recognized that patients not infrequently present both symptom clusters and that at times decision must be arbitrary; or, more rarely, the patient cannot be put into a study program but must have his drug regimen individualized for optimum management.

For those primarily anxious patients the active agent was meprobamate, controlled against phenobarbital and placebo.

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In the depressed group the active drug was imipramine (Tofranil), controlled against placebo.

A double-blind drug study was conducted in the usual way, with all medicines given in identical forms and coded bottles and with the technician being the only person knowing the code involved. The patients were appraised in standard interviews, and the over-all status of several symptom clusters was rated on 4-point scales. The patients also filled out a card sort test (Clyde Mood Scale). The patients were told that several agents were available for the treatment of their condition, that usually not every agent helped every person but that it was hoped at least one, if not all, would be helpful to them. They were informed as to possible side effects. Dosage was kept standard, but patients were allowed to increase or decrease within a given range.

In presenting this study to students the values to the patients of extra attention as well as free medication were stressed and also the advantage to medical science of more extensive and objective acquaintance with the medicines involved.

Discussion.—Our main purpose here is not to present the results of the drug evaluations per se, though to date it seems clear that the active agents are of greater benefit to the majority of patients. Rather, our chief present goal is to discuss such a program as a teaching device, with consideration of the advantages and of the problems which such a new method presents.

Advantages.—In the main there seems little doubt that such a drug evaluation study is sufficiently useful to warrant its inclusion in a clinical teaching program.

For the students, such a study associates psychotherapy with drug management and emphasizes the complementary and not antagonistic nature of these two approaches without undervaluing either. Accumulating data affords a firm base of reality which leaves much less room for either unsubstantiated enthusiasm or obsessional skepticism. Since the students actively participate as partners in the drug evaluation they are stimulated to identify themselves with the goals of the study and in a manner more experientially educational than would occur with reading of texts or papers (3).

At the end of the 12-week period that the students spend at the psychiatric outpatient clinic, the study code is broken and the student learns the reactions of his patients to particular agents. By that time he has been introduced to an objective appraisal of drug effects, to the techniques of double-blind design, and to the strengths and limitations of placebo effects. A healthy respect for objectification in drug evaluation is the usual result along with an increased appreciation for diagnostic accuracy.

To elaborate the latter point, it has been our experience that placebo effects are more likely to occur in mild anxiety problems, whereas the depressed, as well as the severely anxious, patient is less susceptible to suggestion and more often able to distinguish the active from the inactive agent. The depressed patient seems also to be more prone to suffer from a worsening of symptomology while on inactive medicine, one of the probable psychological mechanisms here being the feelings of failure and of fear of rejection from the doctor when the medicine is inactive.

Also, since such a study is impressive only in its cumulative effect, the multiple variable problem of drug evaluation is brought home in considering any individual case as well as the merits of sufficient subject numbers required for making objective judgments of drug efficacy. Furthermore, in this particular study,

there is the decided advantage that, since the therapists are multiple and changing, representing many varying points of view and attitudes, the accumulating impression of efficacy of active ingredients as compared to placebo agents is much more convincing.

Using patients who are followed only in a "drug clinic" and who receive no "formal" psychotherapy affords a valuable demonstration of the values, as well as the limitations, of medicines given with only supportive attention as contrasted to medicine along with more intensive psychotherapy.

Difficulties and limitations.—Despite the positive features described above the following are difficulties and liabilities to the use of such a teaching device:

Such a drug evaluation program is slow to build momentum. Its main interest and profit to the students rest in the accumulative impressions, and initially the students are less absorbed and less committed than they later become as the study grows. (There is also the effect of contagion here as earlier students extend their familiarity with the program and discuss it with their classmates who are to succeed them.)

A related difficulty is that, since the main goal of a senior year clinical psychiatry teaching program is to inculcate a grasp of psychodynamics and of the psychological components of behavior, there are some students who are at first inclined to consider any attention to physiological or pharmacological aspects as being contradictory or detrimental to the basic goals. Here, as in all collaborative aspects of such a program, it is fundamental to enlist cooperation on a rational and voluntary basis without overtones of authoritarianism or compulsion. Such an approach is initially more time-consuming.

Similar difficulties are apt to be encountered among the teaching group. Our program depends upon a large number of volunteer teachers who represent the largest variety of backgrounds and professional orientations. There are inevitably a certain number of teachers who are more or less openly antagonistic to physiopharmacologic considerations, to some good extent from their theoretical orientation and also from anxiety due to the lack of experience with drug therapy. Here also the rational and voluntary approaches as opposed to authoritarianism appear clearly wisest.

One may also raise the question whether or not students of this degree of inexperience are actually competent to weigh psychological fluctuations or medication response. We have considered this feature extensively, but it has not weighed heavily in our prevailing judgment. All initial diagnoses and appraisals of symptomatology are made with the direct help of the teaching staff, and, beyond that, in follow-up appraisals, the data are collected by systematized questionnaires which almost entirely depend upon the patient's responses.

There is the final point that such a program, especially in its beginning phases but to some degree throughout, is apt to require more time and energy for adequate orientation than is generally realized. On this account it is of the utmost benefit that one have the aid of a technician who can manage the problems of scheduling the patient, of collecting and processing questionnaires and other evaluative material, and of distributing, in rotation, the coded medications, and who, finally, can insure over-all continuity.

Summary.—We have reported on a year's experience with the use of a double-blind drug study as a teaching instrument in a senior year clinical psychiatry program.

It is concluded that such a teaching device is a previously unrecognized peda-

gogic aid of decided merit which combines well the psychological with the organic considerations of psychiatric education. It not only extends knowledge of specific drug effects, but contributes substantially to the students' increased sophistication as judges of drug effects and drug evaluation methodology. Thus such a teaching device contributes valuably to a general heightening of competence in these important areas.

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A Retrospective Residency Evaluation by Practicing Pediatricians

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A great deal has been said and written relative to discrepancies between content of pediatric residency training and constitution of pediatric practice (1-6).

Since the theme of the 1960 meeting of the Committee on Education, District VII, American Academy of Pediatrics,[1] was "Post-Graduate Education," the 2-month period preceding the meeting was used to conduct a survey of opinions regarding adequacy of training for pediatric practice. Those polled were the trainees who had finished residencies during the period 1950-1957, so that opinions expressed would be based on at least 2½ years of practice experience.

A simple check sheet was designed in two sections and sent to each Pediatric Department in the district for distribution. No definitions or interpretations of terms or categories were included. A brief statement of purpose and a request for participation were mailed along with each survey form. Six of the eight Pediatric Departments in the district participated; one had no trainees to survey, since the Medical School was on a 2-year basis prior to 1957. Of the 217 returns, 203 were complete and were used in tabulating the results.

The first section of the check sheet required a numerical designation between 1 and 10 to be given each of nine standard "areas" of training in Pediatrics. The higher the number assigned the better the training was thought to be. An average score was derived in each "area" for each training center from the ratings of its own trainees. These scores comprise Table 1.

It can be seen at a glance that the training or experience in the first five areas was much more highly rated than in the last four. As will be seen later, the subject categories most often mentioned as needing additional emphasis during training (studied by the second section of the check sheet) correlate strikingly with the low ratings of the training "areas" in which experience in those subjects is usually gained. Since training in in-patient care was most consistently rated very high, some support is given to the frequently voiced impression of over-emphasis on hospital pediatrics in training for private practice. A review of the "Write-in Comments," however, contains no suggestion for compromising this high rating. It contains many expressions on elevating the lower rated areas without elaboration on technic.

Two features almost universally held to be vital to good training in pediatrics are (*a*) experience in the "scientific method" and (*b*) the theory and practice of "preventive pediatrics." Although it is perfectly true that an understanding of these concepts can be furthered in any teaching or learning situation, it is

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[1] Held at Louisiana State University School of Medicine, Feb. 8-9, 1960.

TABLE 1
COMPARATIVE RATINGS BY SCHOOL OF STANDARD "AREAS" IN PEDIATRIC RESIDENCY TRAINING*

	School					
	I	II	III	IV	V	VI
Premature & NB care	9.0	8.5	8.5	7.0	7.5	8.5
Out-patient department	9.0	8.5	7.5	8.0	8.5	8.0
In-patient care	9.0	9.0	9.0	9.0	9.0	9.5
Weekly conferences	7.0	8.5	7.5	7.0	8.5	9.0
Contagious diseases	8.5	7.5	9.5	7.0	6.0	9.5
Specialty clinics	6.0	6.5	4.5	4.5	6.0	4.5
Community service	5.5	4.0	3.0	4.0	6.5	2.5
Project participation	4.0	5.0	3.5	3.0	5.5	4.5
Child guidance	3.5	3.5	3.5	3.0	8.0	4.0

* Perfect score = 10
Corrected to nearest halfpoint.

interesting to note that specialty clinics, project participation (the "scientific method"), community service, and child guidance ("preventive pediatrics") are generally the lowest rated of the training areas. Since presently the residencies are well scheduled with more highly rated training experiences, desired improvement in these two features would presumably push the training period into the controversial third-year extension for formal training.

The second section of the check sheet was designed to bring out opinions on whether or not proper emphasis was given during residency training in seventeen general subject categories. The participants were asked to mark each subject category by symbol as "should stress more," "about right," or "should stress less." These symbols were then converted to +1, 0, and –1, respectively, and the arithmetic sum was calculated for each subject from the returns of each school.

To portray more graphically what was thought to be proper stress of subject categories, Table 2 was constructed by arbitrarily selecting the five highest and five lowest total scores and assigned the "M" and "L" designations to indicate "Most in need of additional stress," and "Least in need of additional stress," respectively.[2]

[2] The numerical basis for Table 2 is available upon request.

There were 43 additional subjects listed in the "Write-in Comments" section of the 203 returns tabulated, but the overlap with many of the seventeen survey subjects is obvious. "Office management" or "business side of practice" was added six times. For the most part the additions were very broad in scope, such as preventive medicine, genetics, statistics, psychiatry, and therapeutics with a few more specific suggestions such as hematology, cardiology, endocrinology, E.E.N.T., mental retardation, anesthesiology, philosophy of pediatrics, minor surgery, and even one for E.E.G. interpretation.

Although the survey contains the usual variables inherent in surveys, there is an interesting consistency as to what training strengths and weaknesses were thought to be, regardless of where the individual participant trained. According to the method of analysis, almost invariably allergy, dermatology, behavior, adolescence, and counseling experience are shown to be most in need of additional stress (*M*, Table 2). Likewise, infectious disease, gastro-intestinal disease, nutrition and feeding, laboratory procedure, and pediatric surgery were thought to be least in need of additional stress (*L*, Table 2).

The allergy and dermatology categories have been repeatedly pointed out as comprising a significant percentage of office patients, and the additional training

TABLE 2
COMPARATIVE RATINGS BY SCHOOL OF STANDARD SUBJECT CATEGORIES IN PEDIATRIC RESIDENCY TRAINING

Key: M—Most in need of additional stress
L—Least in need of additional stress*

	School					
	I	II	III	IV	V	VI
Prenatal influence		L		L		
Perinatal problems					M	L
Infectious disease	L		L	L		L
Allergy		M	M	M	M	M
Gastrointestinal disease		L	L	L	L	L
Dermatology	M	M	M	M	M	M
Behavior	M	M	M	M	L	M
Neurology						
Nutrition & feeding	L	L	L		L	
Normal growth & development†					L	
Adolescence	M	M		M	M	M
Orthopedics	M		M		M	
Laboratory procedure	L	L	L	L	L	L
Accident prevention						
Counseling experience	M	M	M	M		M
Physical fitness, school health	L					
Pediatric surgery	L	L	L	L		L

* Spaces left blank represent intermediate areas in terms of need for additional stress in residency training.
† Omitted from form by School I.

emphasis needed here correlates well with the low rating for specialty clinics seen in Table 1. The same can be said for the relationship between behavior, adolescence, and counseling ratings from Table 2 and community service, child guidance ratings from Table 1. These relationships are considered evidence of discrepancy between effectiveness of training and the demands of practice.

The effect of the number and distribution of (–) marks (signifying "should stress less") on the *M* and *L* designations of Table 2 is interesting. Apparently laboratory procedure and pediatric surgery rated on *L* because of unmatched (–) marks, whereas physical fitness and school health, also with (–) marks for every school, scored enough (+) marks to lift the subject into an intermediate position in terms of additional stress needed in every instance but one. The policies of departmental participation in school health programs and of dual faculty appointments for public health pediatricians were thought to influence ratings for such categories as physical fitness and school health, accident prevention, and possibly others.

Equally interesting is the fact that enough variation was shown between training centers in the district to make inquiry into the detail of training schedules profitable and sometimes entertaining. Since each pediatric department in the district was represented, although usually not by the chairman or proxy on the scene during all the years under study, the discussion was often lively. It was very quickly realized that emphasis in training areas or subject categories was to a discernible extent influenced by the primary interests, research activity, and teaching inclinations of the faculty, both full-time and contributed service. In some instances apparent strengths or weaknesses in training could be correlated by the discussants with the presence, addition, or departure of a specifically named faculty person or influence.

A case in point is seen in Table 1. The score for child guidance for School V stands by itself. This was thought to be attributable to major grant support

for interdepartmental activity in the field, permitting at times three or four Department of Pediatrics members to concentrate their efforts there. As expected, a closely related subject, "behavior," at this school also stands by itself in Table 2. The closely related training areas, project participation and community service, also are rated higher at this school, again presumably because of the grant support influence.

It was realized that many factors may contribute to variation in learning stimulus from year to year within individual departments, and also that perhaps residency training can be altered to some extent toward or away from more suitable practice preparation by selection of teaching personnel or by planned balance within departmental programs. The desirability and intent of such alteration in relation to other departmental goals, such as training for sub-specialty practice or for teaching and research careers, are often extremely difficult to assess in view of the broader responsibility of training centers to the local and national status of total child care.

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A Modification of the Student Summer Fellowship

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During the summers of 1959 and 1960, a modified summer fellowship was offered to second-year medical students and proved successful. Although designed originally for a relatively small fraction of the student body, it is believed that similar approaches may have considerable value for many students.

The modified fellowship was conceived during a consideration of the applications by first- and second-year students for summer research fellowships. (There is no summer vacation for third-year students.) Albany Medical College has an average of about 60 students per class, so a total of about 120 first- and second-year students were eligible to apply for a student summer fellowship. Of these, 55 applied in 1960 for the 40 summer fellowships which were available. It was noted that many superior students who would certainly have been granted a summer fellowship by the faculty committee on research grants and fellowships did not apply for one. Informal discussions with some of these students revealed that they intended to spend their summers in employment unrelated to medicine. The primary reason was not a financial one, but a disinclination to work in a laboratory over the summer. These students felt that they would gain very little by helping in a faculty research project, and they had no personal projects of interest to them.

Accordingly, the modified fellowship was designed to provide an opportunity for superior second-year students to spend the summer in a manner which would contribute substantially to their medical education.

Through the cooperation of the National Association of Retarded Children, fellowships were obtained for the years 1959 and 1960 in the field of mental retardation. Through the cooperation of the Cystic Fibrosis Foundation, a fellowship was provided for 1960 in Cystic Fibrosis. The financial arrangements for 1960 in both cases involved a fellowship stipend of $600 and a travel fund of $200, with the unexpended balance returned to the grantor agency.

The basic concept of the fellowship involved a vertical approach to a disease entity or group. The student was expected to become thoroughly familiar with all aspects of the condition, theoretical, therapeutic, and sociological, so that by the end of the summer he would be something of an expert in the field. It should be noted that this differs from the horizontal approach, based on departmental organization, which is the usual pattern in most medical schools.

Fellowship plan.—The modified fellowship is suitable only for students who have completed their second year of medical college.

* U.S.P.H.S. Senior Research Fellowship, SF11.

The plan is flexible, to fit the needs and interests of each student. However, there were features in common, which are important to this type of project. During the first week most of the students' time was spent in the library, reading the pertinent literature. During the second week there was still considerable library work, but in addition the student was attending clinics and making plans for the rest of the summer. Attendance at the appropriate clinics of the Albany Medical Center continued throughout the summer. Visits to patient's homes and to appropriate institutions in the area came next. Visits to social agencies concerned with the problem were made.

Subsequently, there were visits to other institutions to see other ways of managing the patients' problems and to learn about research programs and approaches. Visits to special symposia were arranged whenever feasible. During the last 2 weeks of the period, the fellow prepared a report on his activities.

In Table 1 are outlined the activities of the three students who have thus far held these fellowships. It should be noted that, despite the similar basic plan, there was wide diversity in detailed scheduling to fit specific needs and interests. The outline does not fully convey the extent to which the students studied the subject. For example, the term "clinics" for one fellow includes the observation and examination at Albany Medical Center alone of 46 different cases of mental retardation, of 31 different etiologies. The variations developed largely through the initiative of the students, with some suggestions by the faculty.

Faculty supervision.—Faculty supervision of the fellows was divided between two advisors. A representative of the basic sciences departments supervised the students in the basic science areas and library work and helped the students in any administrative problems which arose. The latter included telephone calls to other institutions whenever the students' attempts to make arrangements for visits ran into difficulties.

A member of the clinical faculty supervised the clinical aspects of the project. This included the clinics at the Albany Medical Center, visits to other clinical facilities in the area, and research projects of direct clinical significance. During the initial weeks of the fellowship, this involved a close tutorial relationship.

As the students' familiarity with the project increased, there was some decrease in the degree of faculty supervision needed. However, the amount of faculty time required per student for this type of fellowship is probably greater than that needed for the usual summer fellowship.

The student fellows.—Since this special fellowship was designed primarily for students who were not interested in the usual summer research fellowship, it is well to consider the applicants. A member of the faculty committee on research grants and fellowships (S.G.) had applied to several agencies for financial support for this project, and, fortuitously, the two affirmative replies were received rather late in the school year. By this time all students who wanted summer fellowships had applied for and received them. Accordingly, the new special fellowships had to be awarded to students who had not applied for any of the regular fellowships. There was, therefore, some question as to whether there would be any suitable applicants. However, a considerable number of students applied, and the modified fellowships were awarded to students in the upper fourth of their class. All three students receiving the special fellowship indicated clearly that they were not interested in the ordinary student summer fellowships and had originally planned to engage in non-medical work during

TABLE 1
ACTIVITIES OF THE STUDENT FELLOWS

Week	N.A.R.C. — 1959	N.A.R.C. — 1960	Cystic Fibrosis Found. — 1960
1	Library work	Library work—Visit to St. Margaret's House and Hospital for Babies Clinics	Library work
2	Library work Clinics	Library work Albany Study Center for Learning Disabilities Clinics	Library work Research Projects Clinics
3	Clinics	Library work Albany Study Center for Learning Disabilities Clinics	Library work Research Projects Clinics
4	Attendance at First International Medical Conference on Mental Retardation, July 27-31, Portland, Maine	Albany Study Center for Learning Disabilities Clinics	Parent Interviews Research Projects Clinics
5	Visit with Deputy Comm., NYS Dept. of Mental Hygiene Visits to patients' homes Clinics	Visit to St. Catherine's Infant Home Albany Study Center for Learning Disabilities Clinics	Parent Interviews Research Projects Clinics
6	Aug. 9, 10—Visit to Wassaic State School Aug. 12—Visit to C.P. Rehabilitation Center at West Haverstraw Aug. 13—Visit to Letchworth Village	Aug. 8-10—Visit to Rome State School Albany Study Center for Learning Disabilities Clinics	Parent Interviews Research Projects Clinics
7	Aug. 16—Visit to Syracuse State School for High-Grade Defectives. Aug. 17—Visit to Rome State School Preparation of Reports Clinics	Aug. 16—Visit to Training School at Vineland, N.J. (Private) Visit to Albany Co. N.A.R.C. Visits to patients' homes Albany Study Center for Learning Disabilities Preparation of Report Clinics	Parent Interviews Research Projects Clinics
8	Preparation of Report including a thorough review of Pseudofeeble-mindedness Clinics	Preparation of Report including a thorough review of mongolism Clinics Aug. 31—Visit to Willowbrook State School	Trip to Cleveland Western Reserve Univ. to learn new diagnostic technique in Cystic Fibrosis and observe pulmonary function studies Research Projects Preparation of Report Clinics

the summer. Thus, it seems clear that this special fellowship program is additive rather than substitutive, insofar as the students' medical education is concerned.

The enthusiasm of the students appeared to be considerably greater than that customarily generated by the usual summer fellowship. The two students working in the field of mental retardation voluntarily wrote comprehensive review articles on an aspect of mental retarda-

tion, in addition to their formal report. Their interest in the problem continues, and apparently some of this interest has been communicated to other students. The applications for the N.A.R.C. fellowship in 1960 were based on word-of-mouth reports of the experiences of the 1959 fellow.

The Cystic Fibrosis fellow continues an active interest in several areas. He has been helping the local Cystic Fibrosis group in their fund drive, has organized and presented a talk to parents of cystic fibrosis patients and in whatever spare time he can find, is engaged in research into this condition. It is of particular interest to note that this student, who had very little interest in laboratory work per se, became intensely interested in laboratory studies which were related to a specific condition and to specific patients.

Benefits of this program.—This fellowship program has proved beneficial to the students, the school, the grantor agencies, and the patients and families affected by the specific diseases in this area.

The benefits to the students are most obvious. They include:

1. An opportunity to spend the summer in an area of medical education, rather than in non-medical jobs. Included is the opportunity for self-education. Since the student is given increasing freedom to select his curriculum, it is hoped that this experience will be helpful in post-graduate years.

2. An opportunity to study a disease or disease group in a thorough, integrated fashion. At the end of the fellowship period, the student is an expert in the condition, and his knowledge and understanding of it are far superior to those of the average physician.

3. An opportunity to observe, in an unhurried atmosphere, the psychological and social effects of illness on the patient, his family, and society.

The major benefit to the school lies in the fact that its educational curriculum is expanded, without any increase in expenditures.

The benefits to the grantor agencies appear to be substantial. In each case the disease or condition was one which many people felt had not received adequate attention from medical educators. This fellowship program stimulated a great deal of interest in these allegedly neglected areas on the part of both students and faculty and at a total cost which was only a fraction of a regular research grant. Other benefits to the grantor agencies may accrue later, since all the student fellows have expressed an intent to continue their interest and activities in these areas.

The patients afflicted with the disease in the area served by our medical center, and their families, have benefited in several ways. Through the efforts of one student fellow, a more accurate, less uncomfortable diagnostic technique used in another medical center has been adopted here. The parents of patients feel encouraged at the evidence of increasing medical interest in these conditions.

Accordingly, it appears that modified summer fellowships of this nature can be useful additions to the medical curriculum.

Summary.—A modified summer fellowship featuring an integrated, vertical approach to a disease or disease group is described. This fellowship, appealing to students who are not interested in the usual summer fellowship, offers benefits to the student, the school, and the grantor agencies. It is recommended that similarly modified fellowships be offered as electives during the summer following the second year of medical college.

Attitude Changes in Medical Students During a Comprehensive Care Program

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INTRODUCTION

During the past decade a number of medical schools have initiated programs to train students in the comprehensive care of patients. These have been variously named and differ somewhat in methods, but they are similar in their objectives. The rationale underlying the introduction of such programs has apparently been two-fold: (*a*) a philosophical conviction that in the broad sense human health is a function not only of physical factors but also of social and personal relationships; and (*b*) concern that the traditional medical curriculum might be producing doctors whose approach to medical practice was too fragmented and insular—i.e., skilled technicians capable of dealing with the physically traumatic, but not fully aware of the importance for medicine of the patient's family and social environment.

As Kern and Hammond (8) have pointed out, the concept of comprehensive medicine is not new, but its formal inclusion in the medical curriculum has been attempted only recently.

These programs are largely experimental. They are basically an attempt to educate values—to develop physicians with a broad view of the multiple facets of human health and an understanding of the importance of teamwork among various specialties, both within and outside of medicine. Although the difficulty of evaluating pedagogical methods and of assessing attitudes is notorious, a number of attempts have been made and reported in the literature (3, 8, 9, 13). The most ambitious and complete study to date is a 5-year study reported in a recently published book by Hammond and Kern (7).

The present report gives the results of a 3-year study, the objective of which was to assess some of the effects on students of such a comprehensive care program.

The program at the University of Louisville School of Medicine, called the Family Health Program, was initiated in 1953 as an experiment in medical education[1] and continues at the present time. The staff consists of a teaching committee composed of a social worker and six members of the university faculty representing these specialties: pediatrics, surgery, psychiatry, medicine, obstetrics and gynecology, and preventive medicine. The chairman of the committee and director of the program has been the chairman of the Department of Community Health. Participation by students is on a voluntary basis beginning in the junior year and continuing throughout the senior year. Although the specific arrangements of the program have varied somewhat from year to year,

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[1] Supported by a grant from the Kellogg Foundation.

the general plan has remained the same. Each participating student is assigned a family selected by the social worker. The student acts as the family adviser, making home visits and seeing the family whenever necessary in an examining room established for this purpose at the Family Health office. Members of the teaching committee are available for conferences with the student-doctors by appointment, and seminars with the committee are held about every 2–3 weeks. During the seminar students report on their families, present any problems they may have, and discuss with the committee their plans for future care. Each student follows the same family throughout his junior and senior years. This procedure allows the student not only to participate in handling immediate medical crises but also to follow through on patients with chronic illnesses, and to plan programs of preventive medicine. In 1957, the program was extended downward to include the entire sophomore class on a limited basis. The sophomore program consists of an indoctrination lecture and one visit to a family, plus three seminars. A more detailed description of the goals and activities of the program may be found in another article (4).

The evaluation program here reported was inaugurated in 1957 with the class of 1960, who were sophomores at that time. Pre-testing was done prior to the limited sophomore experience. Several analyses of the results of these pre-tests have been reported previously (10). Retesting of the same group was completed in 1959, after some of these students had participated in the Family Health Program. It was expected that differences in various attitudes would occur in the experimental group during a year's experience in the Family Health Program. Specifically, based on the objectives of the program, the following changes were predicted in the experimental group as compared with the controls: (*a*) a decrease in cynicism, (*b*) an increase in humanitarianism, (*c*) a possible decrease in anxiety (based on previous findings that high cynicism scores are related to greater anxiety), (*d*) greater emphasis on the importance of team work, social, and emotional factors in medical education.

METHOD

Ninety students in the class of 1960 were given a number of group tests of attitudes (described below) during their sophomore year in the fall and spring of 1957-58. These were the pre-tests. During their junior year, fifteen of this class participated in the Family Health Program. This is the "F. H. P." or experimental group. The remainder of the class constituted a control group. At the end of their junior year all students (with the exception of a few drop-outs) were re-tested. Pre- and post-test differences in the F. H. P. group were compared with differences in the control group.

The Attitude Scales.—

1. Yale Public Opinion Poll (6). This test consists of two scales, purporting to assess cynicism and humanitarianism.

2. Institute for Personality and Ability Testing; a measure of manifest anxiety.[2]

3. Medical Education—A Value Study. This test consists of five scales. It was developed[3] to measure student weighting of the importance of various aspects of medical education: Health Supervision, Doctor-Patient Relationship, Team Concept, Social Integration, and Emotional Factors.

[2] 1602-04 Coronado Drive Champaign, Illinois.

[3] Dr. Gerard G. Neuman at the University of Utah Medical School.

TABLE 1

CYNICISM SCORES OF MEDICAL STUDENTS BEFORE AND AFTER FAMILY HEALTH PROGRAM EXPERIENCE

FAMILY HEALTH PROGRAM
(N = 15)

Pre-test mean	Post-test mean	Difference	S. E. diff.
135.13	128.80	-6.33	6.63

Non-participants
(N = 70)

135.68	135.45	-0.23	3.38
	Mean Diff. =	-6.10	
	S.E. Diff. =	7.45	
	"t" =	.....	
	P =	N.S.	

RESULTS

None of the scales given are interval scales; consequently, the use of parametric statistics such as "*t*" may be considered a questionable procedure. In addition, the experimental sub-groups contain too few subjects for reliable conclusions. Results, therefore, may be interpreted with appropriate reservations. All statistical significance levels reported are based on the use of a one-tailed "*t*" test unless otherwise indicated.

Since the experimental group consisted entirely of volunteers, pre-test scores were analyzed to discover any differences which might have existed *a priori* between students who volunteered and those in the control group. No such prior differences existed, except in respect to team concept, in which the volunteers for F. H. P. were significantly *lower* in their weighting than the remainder of the class.

1. Cynicism.—(*a*) In respect to cynicism the experimental group mean decreased from 135.13 to 128.80 (Table 1), an average decrease of 6.33. The control group mean decreased very slightly, 0.23. Although this difference is in the expected direction, it is not statistically significant. (*b*) Of those students in both groups who did increase in cynicism, the control group increased significantly more. Table 2 shows that the mean increase for the control group (N=30) was 24.50, whereas the F. H. P. students who did increase (N=7) increased only 13.15 points. This difference is significant at less than the .05 level. (*c*) Comparing only those students whose cynicism scores decreased, it was found that the mean decrease in the F. H. P. group (N=8) was greater than in the control group (N=39)—23.37 as compared with 19.25. This difference, however, does not attain statistical significance.

It may be noted that there is a sizable

TABLE 2

CYNICISM SCORES OF MEDICAL STUDENTS WHOSE SCORES INCREASED AS COMPARED WITH THOSE WHOSE SCORES DECREASED

FAMILY HEALTH PROGRAM
(N = 15)

Increased (N = 7)			Decreased (N = 8)		
Pre-test	Post-test	Diff.	Pre-test	Post-test	Diff.
137.71	150.85	+(13.14)	132.87	109.50	-(23.37)
		Non-participants			
	(N = 31)	(N = 70)		(N = 39)	
120.50	145.00	+(24.50)	147.23	127.97	-(19.25)
	Mean Diff. =	+ 11.36			- 4.12
	S.E. Diff. =	6.53			7.93
	"t" =	1.73			.....
	P =	<.05			N.S.

difference between the pre-test means of the experimental and control sub-groups whose scores increased. The over-all mean for all subjects on both pre- and post-tests was 135.57, S. D. = 35.85. The ceiling is high; scores above 200 were not uncommon, and the top score was 261. Although the F. H. P. groups, both those who increased and those who decreased, had pre-test means very close to the over-all mean, it appears that the group of non-participants who increased were below the mean originally, whereas those who decreased were above the mean originally. A chi square test for contingency of pre-test scores above or below the mean and subsequent increase or decrease, indicates that in the F.H.P. group the two factors were independent, whereas in the control group they were not ($\chi^2 = 4.83$, $P = >.02 <.05$).

Since it seems unlikely that regression took place in the experimental group, whereas it may have in the control group, it might be inferred that the differences shown in Table 2 were more significant than the statistical test indicates.

2. Humanitarianism.—There were no significant differences between experimental and control groups in respect to their scores on humanitarianism (Table 3). The control group decreased an average of 5.23 points from pre- to post-test, and, for this group alone, the decrease is significant at less than the .01 level. Although the experimental group decreased less than the control group—only 1.27 points—the difference between the differences is not statistically significant. Variance in the experimental group was large, and it is possible that, had the experimental group contained a greater number of subjects, a significant difference would have been obtained.

3. Anxiety.—In respect to anxiety, both experimental and control groups decreased, the experimental group decreasing more (Table 4). Again, the difference

TABLE 3

HUMANITARIANISM SCORES OF MEDICAL STUDENTS BEFORE AND AFTER FAMILY HEALTH PROGRAM EXPERIENCE

Pre-test mean	Post-test mean	Difference
	FAMILY HEALTH PROGRAM (N = 15)	
122.20	120.93	−1.27
	Non-participants (N = 70)	
116.39	111.16	−5.23
	Mean Diff. =	−3.96
	S.E. Diff. =	4.91
	"t" =	.....
	P =	N.S.

is significant in the larger control group but not in the experimental group, nor between groups.

4. Team concept.—Only very slight changes were expected on the M. E. V. S. scales. None of the obtained differences was significant except on the scale having to do with the importance of teamwork with specialties other than medicine. Table 5 shows that the F. H. P. group increased their weighting of the importance of this factor of team concept significantly as compared with the control group, who decreased slightly. Further analyses of results on this scale revealed that the change occurred primarily among those students who were below the mean for the entire group

TABLE 4

ANXIETY SCORES OF MEDICAL STUDENTS BEFORE AND AFTER FAMILY HEALTH PROGRAM EXPERIENCE

Pre-test mean	Post-test mean	Difference
	FAMILY HEALTH PROGRAM (N = 16)	
26.18	22.18	−4.00
	Non-participants (N = 69)	
27.25	24.93	−2.32
	Mean Diff. =	−1.68
	S.E. Diff. =	2.31
	"t" =	.....
	P =	N.S.

TABLE 5

TEAM CONCEPT SCORES OF MEDICAL STUDENTS BEFORE AND AFTER FAMILY HEALTH PROGRAM EXPERIENCE

Pre-test mean	Post-test mean	Difference
Family Health Program (N = 15)		
11.07	12.40	+1.33
Non-participants (N = 61)		
12.61	12.15	−0.46
	Mean Diff. =	+1.81
	S.E. Diff. =	1.02
	"t" =	1.79
	P =	<.05>.025

originally. As shown in Table 6, control and experimental subjects who were above the mean on the pre-test did not differ on the post-test. Those students who were below the group mean originally, however, increased significantly more if they were in the F. H. P. group. In the control group the mean increase for those students was very small—also about one point—whereas F. H. P. subjects who were below the mean on the pre-test had a mean increase of slightly more than four points. This difference between mean increase in experimental and control groups is significant at about the .025 level. As a further check, a chi square analysis was made of the number of subjects in F. H. P. and control groups who were above and below

TABLE 7

CHI SQUARE ANALYSIS OF TEAM CONCEPT SCORES ON POST-TEST FOR THOSE ABOVE AND BELOW THE PRE-TEST MEAN

Group	Frequency Obs.	Exp.	d^2/Exp.
Family Health Program above	11	8	1.06
Non-participants above	39	42	0.20
Family Health Program below	4	7	1.21
Non-participants below	22	19	0.45
		Chi Square =	2.92
		P =	<.10

the mean of the entire group on the post-test. Expected frequencies were obtained from the pre-test scores. Table 7 shows that more of the F. H. P. group were above the mean on post-test than on pre-test, whereas the reverse is true for the control group. Chi square is larger than would be obtained 10 per cent of the time by chance. It appears, therefore, that the direction of the difference is reliable.

REPLICATION RESULTS

As reported in the previous study already referred to, an examination of pre-test results revealed several relationships among the tests for this group of students. To check the reliability of these results the scores of the same group on the post-test were analyzed in the same way.

1. On the pre-test, the "High Anxious"

TABLE 6

TEAM CONCEPT SCORES OF THOSE BELOW AND ABOVE THE MEAN ON PRE-TEST

Below Pre-Test Mean			Above Pre-Test Mean		
Pre-test	Post-test	Difference	Pre-test	Post-test	Difference
Family Health Program (N = 8)					
9.00	13.14	+4.14	12.87	11.75	−1.12
Non-participants (N = 42)					
9.47	10.94	+1.47	14.02	12.69	−1.33
	Mean Diff. =	+2.67		Mean Diff. =	−0.21
	S.E. Diff. =	1.30		S.E. Diff. =	0.93
	"t" =	2.05		"t" =	....
	P =	<.025		P =	N.S.

TABLE 8

SCORES OF HIGH AND LOW ANXIOUS STUDENTS ON CYNICISM AND HUMANITARIANISM

	Cynicism	Humanitarianism
High Anxious (N = 13)	151.46	103.46
Low Anxious (N = 31)	119.58	119.29
Diff. =	31.88	−15.83
S.E. Diff. =	12.69	6.52
"t" =	2.51	2.43
P =	<.0125>.005	<.0125

group, consisting of those students making one of the top four standard scores, was found to be significantly more cynical than the "Low Anxious" group, whose scores fell in one of the bottom four standard scores.

This result was confirmed in the post-test (Table 8). Again, the High Anxious group was significantly more cynical. It is also of interest that on the pre-test High and Low groups contained the same number (23), whereas on the post-tests there were only thirteen in the High group and 31 in the Low group.

2. Post-test analyses indicate that High Anxious students were also significantly less humanitarian (Table 8), whereas High and Low Anxious groups had about the same mean on the pre-test.

DISCUSSION

Results, with only two exceptions, were in the expected direction. It has been found (6) that senior medical students were more cynical than freshmen. The present findings indicate that, among those of our students who did increase in cynicism, the amount of increase was significantly less for those who had had F. H. P. experience—F. H. P. students who decreased also decreased more than controls, although this difference is not statistically significant. Thus, it appears that the comprehensive care program may in some way "hold the line" against increasing cynicism during medical school, if it does not actually serve to decrease it. Over-all results, though not statistically significant, are in the expected direction of greater decrease among experimental students.

In respect to attitudes toward medical education, results indicate that F. H. P. experience produced a significantly greater emphasis on the importance of team work with other specialties, particularly among those students who had originally under-valued this aspect of medical education. Further, the control group in general decreased slightly in their valuation of team work during the junior year.

Results on the anxiety scale, although not statistically significant, are suggestive that F. H. P. may have the effect of reducing anxiety. This would be consistent with the trend toward decreasing cynicism, since high anxiety and cynicism have been found to be related both in the present study and others (6, 10). In respect to humanitarianism, results are again in the expected direction of a smaller decrease among F. H. P. students.

Results on the remainder of the scales used to assess student attitudes toward medical education are not significant. In respect to health supervision, there was a slight increase in weighting by experimental students as compared with controls; both experimental and control groups increased very slightly in weighting of doctor-patient relationship; F. H. P. students increased slightly in valuation of the importance of social factors; finally, the only result which was unexpected occurred on the scale measuring

attitudes toward the importance of emotional factors. Here the experimental group decreased, while the control group increased.

In general, results reflect favorably on the effect of this comprehensive care program. Changes in attitudes of experimental students have been almost entirely in a desirable direction and in some cases, significantly so. Considering the small number of subjects in the experimental group, these facts are encouraging.

The present study is now being replicated on the class of 1962. Reliability of results can be more adequately assessed when post-tests are available on a different group.

SUMMARY

A longitudinal study was made of changes in medical students' attitudes as a result of Family Health Program experience, a comprehensive care program at the University of Louisville School of Medicine. Group tests of cynicism, humanitarianism, and attitudes toward medical education were given, as well as an assessment of anxiety.

Results indicate that, of those students who increased in cynicism, those with F. H. P. experience increased significantly less. F. H. P. students increased significantly in their valuation of the importance of team work with other specialties as compared with the control group. Other results, though not statistically significant, were in the direction of less anxiety and less decrease in humanitarianism. Replication of results has been initiated.

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Association of American Medical Colleges

Proceedings for 1960

Meeting of the Institutional Membership
January 9, 1960

Meeting of Medical School Deans
of Central and South America
October 28, 1960

Fourth Annual Meeting of the Continuing
Group on Student Affairs
October 29, 1960

Third Annual Business Meeting
Medical School-Teaching Hospital Section
October 29, 1960

Meeting of the Institutional Membership
October 30, 1960

Presentation of Borden and Flexner Awards
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The Seventy-First Annual Business Meeting
November 1, 1960

Office of the Executive Director
2530 Ridge Ave.
Evanston, Illinois

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Preface

This volume is the 1960 report to the membership of the Association of American Medical Colleges. The report begins with the annual report of the Executive Director, Dr. Ward Darley, "The Association of American Medical Colleges from 1956 through 1960" and is followed successively by each of the major events that should be a matter of record in the archives of the Association.

The officers and staff take pride in the progress made in 1960 and again, as stated in the Proceedings for 1959, feel that this report "contains either the record of or references to the most important events that are taking place in American medical education."

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The Association of American Medical Colleges from 1956 through 1960

WARD DARLEY, M.D.

In my first three reports to the Association, I have outlined the philosophies, principles, and scope of the direction in which the Executive Council has thought the A.A.M.C. should move.

Very briefly the line of reasoning has been:

1. That since the Association has no authority over any of its member schools, any progress in medical education that it might encourage must depend upon the educational rather than the legislative process, and

2. That if the educational process is to pertain, its best interests will be served by:

a) The gathering and analysis of information and ideas about medical education and of the organizational and financial framework essential to its support;

b) The maintenance of central files and records, the preparation of summary reports and the analysis of summary reports that may be prepared outside the Association's aegis—all of this so that important information and ideas regarding medical education can be centrally preserved and available;

c) The communication of information and ideas to those responsible for the academic programs and the administration and financing of our medical schools and to all other elements of the American public that have reason or should have reason for a responsible interest in medical education;

d) The active involvement of medical faculties and administrators in forums, workshops, speaking, committee work and other creative activities that will stimulate the application and the further gathering and communication of information and ideas and the critical elaboration and comparison that can result therefrom;

e) The provision and analysis of special data and information so as to serve the special uses of individual medical schools, universities, and other agencies that carry active responsibility for medical education, and

f) The identification of those individuals who become particularly knowledgeable and judicious about the structure and function of medical education, so that, as occasions may arise, medical schools or agencies contemplating schools can have ready access to qualified advisors, consultants, and employees.

The Council has felt that a program in line with the above philosophies and principles should help our medical schools to do collectively what they cannot do individually and, yet, enable each school to do more for itself; that this in turn should encourage the individualization of high standards rather than the mediocrity of standardization; and, finally, that it should provide stimulation for the

creative thinking and the development of the fresh leadership which the immortality of an effective system of medical education will require.

In retrospect, as far as data gathering and its communication are concerned, except for pointing to the expanding studies and services surrounding the MCAT and the Teaching Institutes, and to the increasing usefulness of *The Journal of Medical Education*, and except for reporting the development of needed resources and the execution of necessary spade work, my past reports have expressed more pious hope than accomplishment. Now the situation is rapidly changing, and those responsible for the conduct of the Association can begin to appreciate the wisdom of the general approach that was elected 3 years ago.

As evidence of this, I call your attention to the "Datagrams" and "News Letter," the detailed reports of studies, research, and conferences that are appearing with increasing frequency in *The Journal of Medical Education* and in the publications of other related agencies and particularly to the reports of the A.A.M.C. staff and committees (most of which cover the past 3 years) that have just been placed in your hands. To make extensive comment upon these reports would mean unnecessary repetition—they speak for themselves.

I think it is significant to mention the manner in which much of the Association's work, particularly its research and study effort, is being conducted in cooperation with or is being correlated with the work of other agencies that have related responsibilities and interests. The Liaison Committee on Medical Education, established jointly by the Executive Council of the A.A.M.C. and the A.M.A. Council on Medical Education and Hospitals, is an instance of a deliberate arrangement to make this kind of cooperation possible. The Education number of *The Journal of the American Medical Association*, as well as our own publications, and the A.M.A. Congress on Medical Education and Licensure, as well as our own constellation of annual meetings, are of more value as the result. Other agencies, too, are involved with the Association in this criss-cross of data gathering and reporting: The U.S. Public Health Service and its National Institutes of Health and Division of Hospitals and Medical Facilities, the National Science Foundation, the National Academy of Sciences-National Research Council, the National Opinion Research Council, the National Intern Matching Program, the Educational Research Center of the School of Medicine of the University of Illinois, the National Merit Scholarship Corporation, the Health Information Foundation, and the American Council on Education are worthy of special note.

As an important part of this all-out study and data-gathering effort, we must acknowledge how the surveys of medical education by Flexner, Rappleye, Weiskotten, and Deitrick and Berson and also how the many "voice-in-the-wilderness" studies carried out in the past by dedicated individuals and medical schools have established points of reference that are essential if we are to contrast the past with the present and then from this to plan for the future.

And as we look to the future, I think the transmission and critical review of the results of studies and research in medical education, irrespective of where or how they are done, should continue to be one of the principal responsibilities of the Association. It is to this end that much of the administrative and business reorganization of the home office has been directed. Our communication dollar is now stretching much further than has ever been possible before.

It is true that deans, faculty, and others are speaking from these studies and

research with increasing frequency. References to them in the lay news and magazine press are also becoming more frequent. But I believe that if we are to make certain that the general public is to see these data and information in their proper context there should be more speaking and writing on the part of individuals from within medical education itself. The staffs of the A.A.M.C. and the Council on Medical Education and Hospitals stand ready to assist anyone who is so inclined.

However, perhaps the thing that is of most importance right now is for those from within medical education to become more active, through intensive and critical review, in translating our study and research efforts into creative and orderly plans for the future. The precedent for this began more than 9 years ago with the first teaching institute. The forthcoming institute and the two to follow will leave the consideration of teaching areas and student problems and turn to an investigation of the impact of patient care and of research and medical practice upon medical education. The present timing of many studies, in many places, should make these three institutes particularly fruitful. But just because the Teaching Institutes may be taking on this new emphasis must not mean that academic and student considerations can be neglected or relegated to second place.

In my report of last year, I stressed the importance of medical school administrators and faculties coming together—nationally, regionally, singly—so that the responsible people in each institution can study the meaning of their own data and information in the light of both national patterns and comparisons among themselves. As far as the continuing study and consideration of academic matters are concerned, I think there should be more organized response to the Teaching Institutes than is presently the case.

The precedent for the kind of activity I have in mind was set four years ago when, in response to the Institutes on the selection of students and the ecology of the medical school, the Continuing Group came into being. This group has met consistently upon both a regional and national basis and has kept the problems of student admissions and welfare under constant review. It is largely because of the interests and concerns of this group that the program of the Division of Research has been broadened and deepened and the study of student financial problems undertaken by the Division of Operational Studies. The thorough and useful manner in which the members of this group are studying all of these data and the problems they reflect, particularly here at this meeting, is a development that has been most fortuitous, and I believe that, as a result, the leadership necessary to deal effectively with the mounting problems of the medical student is competently at hand.

Now the Medical School-Teaching Hospital Section is poised to perform in the same manner. Many of the financial and administrative studies of medical education that are presently under way or that will shortly be initiated and also many of the considerations of the forthcoming series of Institutes will be important to the interests of this Section.

Returning again to my conviction regarding the need for placing more emphasis upon the continuing, organized study and discussion of the academic areas, I would remind you of the Association's cooperation with the Seminars on Medical Teaching, the third of which was held last summer. The continuation of these seminars, particularly if they will stimulate those who attend to lead their own

faculties to the study of their own teaching effectiveness represents an activity that can be of the first importance. Very shortly Dr. George Miller, who has been the moving spirit in this development, will publish a detailed report of the beginnings of such a study at the University of Illinois. I know of a few other schools that are planning similarly.

That there is a desire to give more attention to the categorical areas of academic medicine is, I believe, evidenced by the fact that for some time such activity has been developing outside the framework of the Association. There is the Association of University Surgeons and the Association of Teachers of Preventive Medicine. The Teachers of Internal Medicine have just formalized an organization, and I understand that the pediatricians and perhaps other specialty teachers are doing or considering the same. While all of this is to the good, I feel that the Association should provide more incentive and more of a place of importance to our faculty people than has ever been the case before. This is a must if the strictly academic areas of medical education are to have the national coordination and continuing study that their importance deserves.

Our present preoccupation with the operational aspects of medical education are important, but only insofar as they can contribute to the proper support of medical teaching and learning, and the time will shortly be at hand when these activities will be changing from special studies to regular services.

If the Association is to satisfy the principle reason for its existence—*the improvement and advancement of medical education*— the marshalling of faculty interest and activity under its aegis must be developed with much more vigor and imagination than has ever been the case before. It is to this phase of development that those on the Executive Council and the Committee on Research and Education are addressing themselves. I trust that the institutional membership will support the recommendations that will result. The membership can rest assured that these two arms of the Association will develop this consideration with the greatest of thought and care.

Meeting of the Institutional Membership

Shoreland Hotel, Chicago, Illinois
January 9, 1960

President Thomas H. Hunter presiding
Roll Call—75 of the 86 institutional members present.

Dr. Hunter reminded the membership that the call for this meeting, dated December 1, 1959 gave notice that the Executive Council was recommending a change in the by-laws. The changes involve the introduction and paragraph (*c*) of Section 3 and Section 10. The purpose is to provide for a new class of membership—the Contributing Membership—and the dues that are to apply. The reason for the recommendation is to make it possible for agencies and individuals that cannot meet the cost of the Sustaining Membership ($1,000.00 which corresponds in cost to the Institutional Membership) to take out a membership that will cost less but still provide the opportunity for a substantial contribution to the support of the Association. The suggested dues are $200-500 per year (comparable to the dues paid by Affiliated Institutional Members).

The revised introduction to Section 3 would read as follows:

Emeritus, Individual, Sustaining and Contributing Membership. There shall be four classes of members, known as Emeritus Members, Individual Members, Sustaining and Contributing Members. The first individual members shall be those persons who were on January 1, 1955 Individual Members of an unincorporated voluntary association called the Association of American Medical Colleges.

and paragraph (c) of Section 3 would read:

Sustaining and Contributing Membership. Sustaining and Contributing Members may be any persons or corporations, who have demonstrated over a period of years a serious interest in medical education. After their qualifications have been approved by the Executive Council, they shall be elected in the same manner as Institutional Members. They shall have the privileges of the floor in all discussions but shall not be entitled to vote.

Section 10 would read:

Dues. The annual dues shall be:

Institutional Members (4 year schools)	$ 1,000
Institutional Members (2 year schools)	500
Affiliate Institutional Members	250
Individual Members	10
Sustaining Members	1,000
Contributing Members	200 to 500

Dr. Vernon Lippard of Yale University moved approval.

The motion was seconded and passed unanimously.

President Hunter, after reminding the membership that the main reason for the meeting was to provide the opportunity for a general discussion of the matters which the Association might wish to present to the Federal Government —either through the Department of Health, Education, and Welfare, the N.I.H. or the Congress, asked Dr. Lowell T. Coggeshall, the chairman of the Committee on Federal Health Programs to preside.

Dr. Coggeshall then called on Dr. John Porterfield, Deputy Surgeon General U.S.P.H.S., to speak regarding the programs of the Administration and the Department of Health, Education, and Welfare that should be the concern of the medical schools. Dr. Porterfield stated that, since most of these programs would be reflected in the President's budget message to Congress, and since this message had yet to be delivered, he was not at liberty to speak with finality upon any of these matters. He did, however, offer a brief statement of the recommendations which the Surgeon General was making to the Secretary of H.E.W. In general these recommendations follow those which appeared in the October, 1959, report of the Surgeon General's Consultant Group on Medical Education (*Physicians for a Growing America*). The recommendations he emphasized were:

1. More adequate reimbursment for medical research costs.
2. The provision of institutional research grants.
3. The provision of funds to assist with the development of local, state-wide and regional plans for the expansion of medical education.
4. Recommendation that the Office of Education give special consideration to medical students in the National Defense Education Act, and
5. The provision of grants for the construction of medical education facilities.

Dr. Porterfield pointed out in some detail many of the limitations and ways of implementation which would be a part of any recommendations which the Administration would make to the Congress.

Dr. Coggeshall then introduced Dr. James Shannon who, after briefly mentioning the administrative reorganization currently under way in the Institutes, spoke regarding N.I.H. expectations in the present session of Congress. Briefly, these will have to do with:

1. The need for institutional research grants;
2. The need for the establishment and maintenance of clinical research units in selected schools of medicine and hospitals;
3. The need to increase the training programs and along with this to do more to encourage careers in full time medical research and teaching; and
4. The difficulties attendant upon the provisions of full indirect costs for project research.

Dr. Coggeshall then asked Dr. Boisfeuillet Jones, chairman of the Senate Appropriations Committee of Consultants on Medical Research, to speak. Dr. Jones reminded the membership that he had described the origins, organization, and assignment of this committee at the last annual meeting. He reported that the committee was at work, holding hearings with selected individuals and groups and would have a preliminary report ready shortly after February, 1960.

There then followed a general question, answer, and discussion period in-

volving the statements made by Drs. Porterfield, Shannon, and Jones. This was terminated at lunch time.

When the afternoon session started, Dr. Coggeshall, still presiding, stated that he hoped for discussion of the points which follow, and that he and his committee were searching for ideas and a sense of direction from the membership; he did not expect to ask for motions or voting upon any question as follows:

1. Indirect research costs,
2. Institutional research grants,
3. Construction grants,
4. General Federal Support,
5. Scholarship for medical students.

During the discussion many points of view were expressed, and many excellent ideas were offered. The transcript of the entire meeting was placed in the hands of the Chairman of the Committee on Federal Health Programs and should prove of value in the work of this Committee for some time to come.

Meeting With Medical School Deans of Central and South America

Diplomat Hotel
Hollywood Beach, Florida
October 28, 1960

President Thomas H. Hunter, presiding
Visiting Deans attending:

Aguirre-Ceballos, Dr. Alfonso, Dean, Facultad de Medicina, Universidad de Antioquia, Medellín, Colombia

Anzola, Dr. Eduardo, Medical Director, Hospital Universitario del Valle, Cali, Colombia

Echeverri, Mr. Humberto, Administrator, Hospital Universitario San Vicente de Paul, Medellín, Colombia

Fajardo, Dr Jose, Professor of Internal Medicine, Facultad de Medicina, Universidad de San Carlos, Guatemala City, Guatemala

Fernández, Dr. Gustavo, Dean, Facultad de Medicina, Universidad del Cauca, Popayán, Colombia

Fuentes, Dr. Jaime, Vice-Dean, Escuela de Medicina, Universidad de Guanajuato, Leon, Gto., Mexico

Gutiérrez-Arango, Dr. Ernesto, Dean, Facultad de Medicina, Universidad de Caldas, Manizales, Colombia

Haydar-Ordage, Dr. Francisco, Dean, Facultad de Medicina & Ciencias Naturales, Universidad de Cartagena, Cartagena, Colombia

Hermansen P., Dr. Ivar, Dean, Universidad de Concepcion, Facultad de Medicina, Concepcion, Chile

Hurtado, Dr. Alberto, Dean, Facultad de Medicina, Universidad Nacional Mayor de San Marcos de Lima, Lima, Peru

Jiménez, Dr. Alejandro, Dean, Graduate School, Military Hospital-Colombian Medical Center for Graduate Studies, Bogotá, Colombia

Marín-Servín, Col. M.C. Jose Luis, Dean, Escuela Medico-Militar, Mexico, D.F.

Mata-Machado, Dr. Jose Henrique, Faculdade da Medicina, Universidade de Minas Gerais, Belo Horizonte, Brasil

Mendoza, Dr. Herman, Graduate School of the Hospital Militar, Bogotá, Colombia

Molina, Dr. Gilberto, Universidad de Nuevo Leon, Monterrey, Mexico

Montemayor, Dr. Ramiro, Facultad de Medicina de la Universidad de Nuevo Leon, LaFama, Nuevo Leon, Mexico

Moreno, Dr. Bernardo, Dean, Facultad de Medicina, Universidad Pontificia Javeriana, Bogotá, Colombia

Neghme, Dr. Amador, Secretary, Facultad de Medicina, Universidad de Chile, Santiago, Chile

Ocampo L., Dr. Alfonso, Minister of Public Health, Bogotá, Colombia

Pardo, Dr. E. G., University of Mexico, Mexico City, Mexico

Paredes-Manrique, Dr. Raul, Dean, Facultad de Medicina y Ciencias Naturales, Universidad Nacional de Colombia, Bogotá, Colombia

Peña-Chavarría, Dr. Antonio, Dean, Facultad de Medicina, Universidad de Costa, Rica, San Jose, C.R.

Santoscoy G., Dr. Guillermo, Dean, Facultad de Medicina, Universidad Autonoma de Guadalajara, Guadalajara, Jal., Mexico

Tijerina de la Garza, Dr. Mentor, Dean, Facultad de Medicina, Universidad de Nuevo Leon Monterrey, Nuevo Leon, Mexico

Torre, Jose Miguel, Medical School of San Luis Potosi, San Luis Potosi, Mexico

Vargas-Rubiano, Dr. Alfonso, Chief, Department of Pediatrics, Military Hospital-Colombian Medical Center for Graduate Studies, Bogotá, Colombia

Velazquez-Palau, Dr. Gabriel, Dean, Facultad de Medicina, Universidad del Valle, Cali, Colombia

After welcoming remarks by Drs. Hunter and Darley, Dr. John Cooper spoke on the subject, "Medical Education in the United States" and Dr. Jose Vivas, "The Role of the Association of American Medical Colleges in Medical Education."

Following this a panel made up of Drs. John Cooper, Walter Wiggins, Charles Watkins, Jack Weir, Maxwell Lapham, G. E. Ellinger, Jose Vivas, and Ward Darley, with considerable participation from the floor, answered questions and discussed points made in Dr. Cooper's and Dr. Vivas' papers.

Dr. Ward Darley then made the following remarks:

"Shortly after I returned from the meeting of the Pan American Medical Association held in Mexico City last May, Dr. Luis Munist, Dean of the Medical School of the University of Buenos Aires, wrote suggesting the formation of a Pan American Association of Schools of Medicine. This led us to invite all of the medical deans from all of the Americas to join us here in Florida and discuss Dean Munist's suggestion. I found the discussions of medical education that were held in Mexico City to be most worthwhile, and I agree with Dr. Munist that, if we could come together regularly and discuss our mutual interests, we could contribute much to the advancement of medical education everywhere.

"Some of the history and characteristics of medical education in this country have been discussed by Deans Vivas and Cooper. Perhaps in the very near future you gentlemen will find it possible to tell us much more than we now know about medical education in your countries. Most of us know very little about one another's interests and programs. We are all too much immersed in the day-to-day events of our own schools.

"We who have accepted the administrative responsibility for medical education in our respective countries have not found sufficient opportunity to become acquainted. Perhaps this is because we have had to remain at home, each of us, and look after the 'factory,' while our professors travel about the world on purely scientific and professional medical matters. We have all seen the very real accomplishments and gratifying friendships which have grown out of the accelerated international scientific exchanges of methods and opinions in the general area of medicine. We have all profited very much, I believe, from the scientific knowledge

and understanding which our traveling faculty members have gained. The scientific and professional colloquia and congresses which they frequently attend do much to improve the content of education in their respective areas of interest. However, the aggregate potential of these benefits might be much better achieved in the improvement of the whole of medical education in each of our schools if we, the deans, engaged in similar activities. It is our responsibility to integrate and coordinate the talents and interests of all of our faculty members. A more regular and thorough exchange between the deans of the American Republics should help us in this task.

"There is every reason for us to work together. Scientific and professional contributions from all of our countries have long been fundamental elements in the world of medicine. The literature of medicine is rich with them. I can cite easily many of our predecessors such as the distinguished Braun-Menendes who was in the south, in Buenos Aires, to Banting in the north, in Toronto. Our schools are equally renowned, ranging from the distinguished institutions of Brazil, Colombia, Guatemala, and Chile, the venerable University of San Marco, to the esteemed Cardiological Institute in Mexico City. There are many more, for the Americas have a proud record of scientific and professional progress in medicine.

"With our respective national governments increasingly aware of the social necessity for constantly improved medical care, and also of the absolute dependence of this on the highest possible standards of medical education, it seems proper that we who carry the administrative and the conceptual responsibilities of the process work more closely together.

"I wonder what you gentlemen here would think of the establishment of a 'Pan American Federation of Associations of Medical Schools.' Several of our countries now have a national organization of their medical schools. As you can see, we have one in the United States. Speaking for my own country, I believe I can truthfully say that United States medical education has been improved by the increasing influence and force of this Association.

"I hope you will not think me presumptuous or my thoughts premature when I ask you to give some thought to this proposal. We could begin by asking the national Associations already established to serve as charter members of the Federation. In those countries which have not yet found it expedient to form a national association of medical schools, the deans might be asked to become individual members of the Federation until they can form a national association of their own, at which time the new association would enter the Federation. The details of the organization are not so important. It is the purpose and the potential of the Federation that appeal. I would welcome your comments and suggestions."

Considerable discussions followed this proposal, with the conclusion that the Latin American deans would meet by themselves and develop a proposal that could be considered November 1, at the Annual business meeting of the Institutional Membership.

Fourth Annual Meeting of the Continuing Group on Student Affairs

Diplomat Hotel
Hollywood Beach, Florida
October 29–30, 1960

The Continuing Group on Student Affairs, outgrowth of the 1956 Teaching Institute on Appraisal of Applicants for Admission and a chief beneficiary of the 1957 Teaching Institute on the Ecology of the Medical Student, held its 4th Annual Meeting on Saturday and Sunday, October 29–30, 1960. As in previous years, the attendance was excellent, and almost all United States, and many Canadian, schools were represented by one or two faculty members with major responsibilities in student affairs.

In the opening session, Dr. Caughey of Western Reserve, the chairman, placed emphasis on the fact that over the last 4 years there has been tangible improvement in the handling of application and admission problems, and better relations of medical schools with one another and with applicants and their college advisors, at a time when the number of candidates for admission has been decreasing and more competition and misunderstanding might have been expected. In 1960, up to the time of the meeting, the A.A.M.C. had received no complaints about admission practices either from applicants or from medical schools. The "Recommended Acceptance Procedures" adopted by the Continuing Group as a substitute for the previous "Traffic Rules" have appeared to provide reasonable flexibility for the medical schools and to be easily comprehended by the applicants and their advisors. Dr. Caughey called attention to the major contribution made by the Continuing Group members in administering the questionnaire on "Financial Problems of Medical Students" to the Class of 1959. The data from this study have been of great value to the Association as a basis for formulation of its policies on financial aid. He also stressed the importance of the Continuing Group Regional Meetings, which have now become well established in all sections of the country and which provide opportunity for informal discussion of both local and national problems related to student affairs.

A report on the A.A.M.C. booklet, *Admission Requirements of American Medical Colleges*, was presented by the editor, Miss Nourse. The Continuing Group members expressed their appreciation of the growing circulation and increasing usefulness of this publication. It was agreed that reprints of its introductory chapters, and the pages giving data about individual schools, would be made available to each school, at cost, upon request. Suggestions were invited about ways in which the booklet can be improved and distributed more widely.

A major portion of the time of the Continuing Group meeting was devoted to small discussion sessions in which the members turned their attention to subjects which are currently of major interest to them. The principal topics were: financial problems of medical students, recruitment, improvement of selection and admission procedures, and the appraisal of the progress of students in medical school and following graduation.

In a Scientific Session, several studies on student affairs problems were reported. Dr. Wimburn Wallace, of the Psychological Corporation, discussed further development of the Medical College Admission Test. A follow-up study on 1950 medical graduates, "The Measured Interests of Physicians," was presented by Dr. Anthony C. Tucker, of the University of Denver. Dr. Helen Hofer Gee, A.A.M.C. Director of Research, discussed the ways her Division uses the data it obtains from the medical schools, and the great advantage to the A.A.M.C. research program which results from having in each school individuals who are informed about and interested in the studies designed to shed light on applicant and student problems. Her associates, Drs. Charles F. Schumacher and Edwin B. Hutchins, read papers entitled, "MCAT Repeaters: The Use and Interpretation of Scores," and "Students' Perceptions of Their Medical School Environment."

From the A.A.M.C. Division of Operational Studies, Dr. J. Frank Whiting presented a report on "The Financial Position of the American Medical Student." His extensive data, which were distributed in mimeographed form, emphasized the sharp contrast between the cost of M.D. education and Ph.D. education to the student. He also provided for individual schools, and for geographical areas, information about students' answers to questions about costs, outside employment, career plans, and their reactions to the financial burdens they encountered in medical school.

In a final executive session, the Continuing Group voted to establish a Committee on Financial Problems of Medical Students to work with A.A.M.C. staff on plans for long-range studies in this area, in an effort to increase the number and quality of applicants to medical schools. The Continuing Group also put emphasis on the need for programs to inform high school and college students about the variety of career opportunities in medicine. A proposal for a detailed study and trial run of a "matching plan" for medical school admission was voted down, but there was support for steps to create a "common pool" of alternates to facilitate contacts between qualified applicants and schools which have vacancies to be filled. Although no decisive action was taken, the Continuing Group did direct its Committee of Regional Chariman[1] to arrange for further cooperative research on selection problems and for intensive study of methods for appraising the progress of students in medical school and after graduation. It was also agreed that the Continuing Group should devote attention to the relations of pharmaceutical companies with medical students, the impact of clinical externships on students, and the kinds of programs which may be proposed for encouraging foreign students to seek admission to United States medical schools.

Because the Continuing Group on Student Affairs is composed of designated representatives from each of the medical schools, it is basically different from the usual type of A.A.M.C. committee. Since it grew out of the Teaching Institutes, it has been related to the A.A.M.C. Executive Council through the Committee on Research and Education. In the Executive Session there was debate whether this is the most effective operational pattern. This problem was referred to the Committee of Regional Chairmen for further study in consultation with the officers of the Association.

[1] The members of this Committee are: Asper (Hopkins), Hanlon (Cornell), Mahoney (Indiana), Morris (Iowa), Schofield (Baylor), and Stowe (Stanford).

Third Annual Meeting of the Medical School-Teaching Hospital Section

Diplomat Hotel
Hollywood Beach, Florida
Oct. 29–30, 1960

The third annual meeting of the Medical School-Teaching Hospital Section of the Association of American Medical Colleges convened at 9:00 A.M. Saturday, October 29, at the Diplomat Hotel, Hollywood Beach, Florida. With the Chairman of the Section presiding, Dr. Thomas Hunter, President of the A.A.M.C. very briefly keynoted in his remarks of welcome the overriding concern of the Association, in its general sessions, and also in the Teaching Institute, with the relationship of medical education to medical service. He noted that the sections' general subject "Effect of Teaching and Research on the Medical School Teaching Hospital" provided an effective springboard for concerns of service in terms of the educational and investigative obligations which exist in the teaching Hospitals.

The chairman appointed a nominating committee of Russell Nelson, M.D., of Johns Hopkins University Hospitals, LeRoy Rambeck, University of Washington Hospitals, and Frank Bradley, M.D., Washington University Hospitals, Chairman. They were directed to report at the business session at the close of the program on Sunday noon. Nominations for Chairman, Vice Chairman and one member of the Executive Committee would be submitted.

The chairman called attention to the progress which had been made by the Section through the year including the addition of the associate members upon nomination of the deans to the roster of the membership. Attention was called to the activities of the conjoined groups composed of members of the Executive Committee of the Teaching Hospital Section and of the Medical School-Teaching Hospital Committee of the A.A.M.C. The plans for developing the study on the financial relationships of the Medical School-Teaching Hospitals and Medical Schools were discussed, noting the additional interest and concern in this field on the part of both the American Hospital Association and the United States Public Health Service. Plans for relating the efforts of these three groups into a coordinated study were presented. The program planned for the three half-day sessions of the Section was discussed, and its relationship to the Teaching Institute was pointed out. A brief history of the Teaching Institutes was related.

In introducing the morning program the chairman delineated the three areas which would be dealt with under the general entitlement of "The Effect of Teaching and Research on the Teaching Hospital." The morning session would relate to the effect of teaching and research on the quality of patient care. The afternoon session was centered on the effects of teaching and research on the

teaching hospitals' community relations and the Sunday morning session on the effects on the teaching hospitals' economy.

Following are the titles of the papers presented and the names of the speakers.

"Quality of Patient Care—Measurable or Immeasurable," Robert A. Myers, M.D.

"Factors Which Insure High Quality Medical Care in the Medical School-Teaching Hospital," James A. Campbell, M.D.

"Patient Reaction to Teaching and Research Situation," Julius B. Richmond, M.D.

"Art Plus Science in Patient Care," Hugh H. Hussey, M.D.

"Academic Versus Service Responsibilities of the Teaching Hospitals," Carlton B. Chapman, M.D.

"The Teaching Hospital's Dependence Upon Strong Community Relations," George G. Reader, M.D.

"Organization of Community Medical Services and Relation to the Teaching Hospital," George Baehr, M.D.

"Effect as Viewed by Hospital," George Bugbee

"Effect as Viewed by the Medical Educator," Robert L. Berg, M.D.

"The Effect from the Standpoint of the Consumer," Jerome Pollack

At the conclusion of the formal program at 12:00 noon on Sunday, the group was reconvened for a business meeting. Frank Bradley, the chairman of the Nominating Committee, reported as follows: The nominations for Chairman, Albert W. Snoke, M.D., Grace-New Haven Hospital Vice Chairman, Richard O. Cannon, M.D., Vanderbilt University Hospitals; Executive Committee, 3-year term to expire 1963, Mr. Harold Hixon, University of California (San Francisco) Hospitals. A motion was made to close the nominations and to direct the secretary to cast a unanimous ballot for this slate. This was duly seconded and carried. The incoming chairman, Dr. Albert W. Snoke, was introduced. The outgoing chairman expressed his deep appreciation to his colleagues who constituted the program committee and to all those who served to insure the ultimate success of the third annual meeting program.

Meeting of the Institutional Membership

Diplomat Hotel
Hollywood Beach, Florida
October 30, 1960

Presiding: President Thomas H. Hunter

After expressing appreciation for the efforts Dr. Lowell T. Coggeshall made in the interests of the 1959 Congressional program, Dr. Hunter introduced Dr. Coggeshall, who briefly reviewed the activities of his committee and the positive legislation that had passed the last Congress:

1. Institutional Research Grants
2. Clinical Research Centers
3. Career Research Professorships
4. Senior Fellowships, and
5. Special Fellowships

Dr. Hunter indicated that Dr. Coggeshall would be retiring from the chairmanship of this committee and called for an expression of appreciation. This was followed by a standing ovation.

Dr. Hunter then introduced Dr. James M. Hundley, Assistant Surgeon General, U. S. Public Health Service, who made the following statement:

DR. HUNDLEY: Dr. Hunter, Dr. Coggeshall, I would like first to express Dr. Burney's regrets that he himself could not be here, but he had a previous commitment on the West Coast with the Association of State and Territorial Health Officers that he could not avoid. He did ask me to substitute for him in talking briefly with you about the current situation, prospects and problems with respect to federal aid to medical education.

There are two facets to which I want to address myself. They have both been mentioned already.

One is aid for the construction, expansion, modernization, renovation of medical educational facilities, and the other is related but somewhat separate, namely, support for the training of students in medicine, dentistry, public health and osteopathy.

Taking the first one, that is, aid for the construction of educational facilities—many of you know I am sure that this is a hardy perennial in Congress. Some sort of bill, or bills, have been in the legislative hopper for each of the last 10 or 11 years. Not one has yet passed.

As a matter of fact, our people who formulate and draft legislation always groan when a medical educational construction bill comes along, because almost every year they are asked to put some sort of a new look on it, so it has a chance of getting through, and they have about run out of new looks.

However, prospects do seem brighter than they have in some time.

In the first place, as Secretary Flemming discussed last year in the hearings, we do now have fairly wide agreement and wide recognition on at least four points; one, an adequate supply of medical manpower is now, and in the years ahead will be a critical problem of national import and national concern.

Secondly, unless concrete action is taken quite promptly, the situation will get worse instead of getting better. The time lag between the initial of an idea for

constructing a medical school and the time when it puts out its first graduate is obviously one parameter of this pump.

Three, I think there is wide recognition and acceptance that some sort of federal aid will be required to meet this problem.

And the fourth point, which is obvious to you, of course, is that we cannot, we have no reasonable expectation of meeting the deficit of medical manpower unless there is a very substantial number of new schools.

There are, however, other points on which there has not been general agreement and these have been important stumbling blocks to legislation. Basically the disagreements hinge around these points: the nature and amount of federal assistance and the conditions under which it should be provided; federal aid without federal control; federal aid without undermining state and local responsibility; and the fair share of federal aid in the program.

In our view, it is virtually certain that some sort of a legislation, probably several proposals from several sources, will be introduced into the next Congress. The odds are excellent that HEW and PHS will have its proposal.

However, the provisions and nature of that proposal are quite uncertain at this point of time. I am sure you know that federal agencies such as the Public Health Service are not free agents to develop and introduce proposed legislation. This must be done within the context of the general and specific policies of the administration of which we are a part.

This being October 30, with November 8 right around the corner, I think you can appreciate that we must retain considerable flexibility in our thinking and in our planning.

However, regardless of which party wins, we still believe that there is more reason for optimism than normal.

Just to remind you of things I am sure you must be familiar with, the platforms of both the Republican and the Democratic parties have been quite specific with respect to federal aid for medical education.

The Republican platform states:

"We face certain serious personnel shortages in the health and medical fields."

Federal help in new programs to build schools of medicine, dentistry, public health and nursing and to provide financial aid to students in these fields are what they pledge.

The Democratic platform is similar although in different words.

"To ease the growing shortage of doctors and medical personnel, we propose federal aid for constructing, expanding and modernizing schools of medicine, dentistry, nursing and public health. We are deeply concerned that the high cost of medical education is putting this profession beyond the means of most American families. We will provide scholarships and other assistance to break through the financial barriers of medical education."

Now, if you read these two planks closely, there are some differences. It is hard to know whether they are intentional or unintentional, but the practical point is that both parties quite flatly favor federal action, federal aid to expand the capacity of medical schools and to assist students.

Both candidates for the presidency have subsequently amplified their views. Nixon has a white paper on the subject. Senator Kennedy gave a speech in Warm Springs, Georgia, which amplified his views on this.

I won't go into detail, although they did add a little detail, so basically I think from the standpoint of this meeting, the concrete point is that they have very specific views and intentions with respect to federal aid.

However, this still leaves a very large area of uncertainty in many aspects of any legislation that might be introduced.

Normally at this time of the year, the Public Health Service and HEW are quite well along in devising and drafting appropriate needed legislation. This year, for obvious reasons, we are not.

We must, as I indicated earlier, retain a flexible position for some time yet. We are, however, doing quite a lot of staff work with the idea of exploring and analyzing the alternate possibilities so that when the time for action comes, we will be ready with sound and well thought out measures.

Means of expanding medical manpower, of course, are high on our priority list. In view of this fluid and rather flexible situation, it seems to me it is rather timely to discuss this particular subject at this meeting today. We are, of course, aware of the views of this association as they have been expressed previously in testimony before the Congress.

I assure you that we will welcome any additional views that you may have or that you may later develop.

There are some problems on timing which Dr. Coggeshall referred to, but nevertheless I want to assure you that the door is open.

The remainder of what I will say will simply be to introduce a few key points or issues which I think you would want to keep in mind in your thinking on the subject. These are by no means all of them, but it seems to me these are some of the principal ones.

We are still talking now about construction for educational facilities.

One, should federal aid be limited to new construction and renovation which expands enrollment, or should modernization of facilities be supported, even if no substantial increase in enrollment results?

And what should the relative priority among these be?

Second, should new construction, renovation and modernization compete for the same funds, or should each have separate allocations and ceilings?

And again, what should the relative priority be?

Should matching requirements be the same for new construction, renovation and modernization?

Should matching be uniform for all institutions or should it be flexible according to financial resources or according to regional differences in the deficits of health man power?

Should federal aid extend to all of a facility even though parts of it are used for purposes other than teaching?

Actually three concepts have been developed on this particular point as to how much of a facility should be covered by the federal matching contribution.

The first concept is what we call the proportionate use concept. This is the concept that is now in the Research Facilities Construction Act whereby federal matching will extend to that portion of a facility which is used in research.

The second concept, for want of a better word, is the "essential to" concept. This was incorporated in the administration bill last year.

Under this concept, federal aid could cover all of say a medical school library or an animal house, even though it was used more by other groups for other purposes than by the medical students themselves, so long as it was essential, to the teaching of medical students.

The third concept is what you would call the "principal use" concept. That is, federal aid could extend to all of a facility even if used for other purposes such as research, so long as the principal use of the facility was for teaching, that is, 51 per cent or more we will assume.

This actually was introduced as an amendment to legislation about two years ago.

These may seem like academic points to you but I raise them deliberately because I can assure you they are not academic points when you consider the simplicity and

the utility of a program at your own level in the institutions as well as at the federal level, and this is simply one aspect of some of the complicated problems that exist in this area.

This, I think, is particularly important to medical schools because medical schools typically are multi-purpose in nature. They are not just teaching or research.

Now, another point I am sure Dr. Shannon will remind you that the Research Facilities Construction Act must be reauthorized in the next Congress if the program is to continue.

Thus, Congress may find it desirable to consider both research facilities construction and teaching facilities construction at the same time, and perhaps in the same legislative package. They are obviously related and this in itself will bring up a number of questions that will need to be resolved.

We will turn now to scholarships. There are three basic ways in which a federal program to aid the educational costs of medical students could be arranged:

First, federal matching grants to states with some state agency making the individual award.

The second basic way is fellowship awards made directly to applicants by a federal agency. This is a pattern that exists in most of our research fellowship programs now.

The third basic way would be federal grants to institutions with the institutions making the award to applicants.

Now, there are combinations and permutations to this, but these are the three basic approaches to this problem.

Actually there already exists precedents for all three; advantages and disadvantages which should be rather carefully weighed.

There are other quite important questions on medical scholarships. Should they be purely grants-in-aid or loans or mixtures? And if they are mixtures, in what proportion and for what purpose?

How many fellowships should be provided for the United States as a whole or per school?

Should the school receive full tuition costs, or just the standard tuition and fees?

If the schools are to receive full tuition costs, then are measures needed to assure equitable distribution among schools?

Should the scholarship grant or loan include a feature for forgiveness in whole or in part if the graduate fulfills certain conditions, say practices in a remote rural area where the financial incentive is not great, federal service, foreign service, and so on?

Now, I fully realize that I am simply raising questions and not answering any of them. But these are some of the questions that we are trying to analyze at the moment and questions on which we would certainly welcome any advice that you may have.

I want to introduce just two more points which I think are of some importance. I am sure you realize that there is quite a difference between what a federal agency may propose or be allowed to propose, and what Congress may ultimately enact, or to put it in more practical terms, the new administration, whether it is Republican or Democratic, may feel that it is committed to deliver a bold and comprehensive program. It does not by any means follow that Congress will feel the same way.

It is seldom that we get everything we think we need even though the need may seem self evident.

Therefore, I think we should have some priorities in mind, not only as to the cost of the program. Relative priorities of new construction, expansion, modernization; construction versus scholarships, etc. All of these need to be evaluated as Congressman O'Brien remarked last year to Secretary Flemming in the hearings.

He said to us, I am quoting, "To use baseball terminology, apparently your theory (Secretary Flemming's theory) is that we are so far behind that it is more important

to get something on base than to swing for the fences all the time and strike out."

And this is what we have been doing so far, is striking out.

Now, the last point is also a matter of tactics. Two basic courses are possible. There were several bills in the legislative hopper last year concerning both of these topics.

One course then would be simply to reintroduce these measures and through hearings and amendments bring them to the form that would be acceptable and desirable and suitable. This could be either the Administration bill or the Fogarty Bill. Actually Congressman Fogarty had two bills. This would be the simplest in many ways.

The second, is to write a totally new bill which is, of course, more complex and more time consuming. If we had to look into our crystal ball and make a guess, we would predict that no matter which party wins the elections, that the administration will probably want to introduce a new bill, its own bill.

Both parties are so deeply and so publicly committed to Congress action in this field that our working assumption is that there will be an administrative bill on this topic.

Well, these are simply a few perimeters of this subject which I know have very deep interest to you.

Again, as I said in the committee meeting this morning, I would like to repeat here that so far as the Public Health Service is concerned, we would welcome any advice or assistance that you can give and under any reasonable conditions under which it could be provided from your standpoint and ours.

But just to pick up for a moment and re-emphasize the point that Dr. Coggeshall made, we cannot right now predict what the timetable is going to be.

At one end of this spectrum it could well be two days after election that we will suddenly get a call to have our legislative program go upstairs.

To take another extreme, it might well be next January or February before we would be called upon to make our recommendations.

In either event, there is not a lot of time if it is your desire to introduce your thoughts during the early and formulative part of the process by which new legislation is enacted.

But whatever the group decides that it can and wishes to do, I can assure you on behalf of the Surgeon General that we will welcome it. Thank you.

President Hunter next introduced Dr. James Shannon, who made the following remarks:

DR. SHANNON: I would like to spend about ten or fifteen minutes discussing ultimately three programs that are basically new programs this year, but I think this is only profitable if I go back two or three years and talk something about the evolution of thought that has led to these programs.

And so as to avoid the need to give credit at various points to the forces that have led to the development of these, I would point out that the programs of the National Institutes of Health have been under a fairly systematic study for the last six to eight years, first by a committee appointed by the National Science Foundation at the request of Secretary Hobby. This led to what was commonly known as the Long report.

Then by a group of consultants appointed by Secretary Folsom which led to the Bayne-Jones report.

And more recently by a group of consultants to the Senate appointed by Senator Hill which lead to the Jones report.

Now, underlying all of these reports and giving total support to the evolution of a rational program in support of medical research in this nation have been certain common threads of continuity which repeatedly find themselves emphasized, and I

would like to leave off from there and then interpret the background as it has evolved fairly rapidly over a limited period of time.

The objectives of our programs up to 1957, which I believe was the critical point in their development, although they constitute a broad framework for the support of research, nonetheless grew with the quite rigid restrictions imposed upon them, and it was not until the summer of '56 when as a result of a very effective secretary and the whole-hearted support of the Congress, striking increases in both the basic size of the budget and the rate of the increase were developed, emphasizing the need to bring breadths and program balance as characteristics of the program, to bring into prominence an accepted federal role in support of research and development of these programs by both the executive and legislative branches, and a clear cut statement of an attitude that these programs should not be unduly restricted by virtue of lack of adequate support.

As a result of these general judgments, as you know, our programs have grown very rapidly over the past four or five years, and at a reasonable early date, namely, that 1960-1961 year, have headed into a new point of departure for the future.

At the present time or up until quite recently, our total programs have been engineered to support the individual scientist, to program him an environment within which he can operate effectively and to provide resources for state expansion of these programs, whether these resources be in terms of manpower or in terms of physical resources.

The terms and conditions of the grants, whether fellowships or research grants or training grants, were devised by our people so as best as was possible to parallel the aims and objectives of the institutions they dealt with, but in no sense could they have been conceived as satisfying the needs of those institutions.

I believe that the transition we see in our programs today is that at least we make a large beginning in the direction of satisfying certain of the institutional needs as institutional needs, recognizing that with an expanded program of medical research in this country, it will only be stable, it will only persist from the standpoint of long term growth for the institution which contains it, and when its scientists are given some measure of help that is not provided within the program as currently operated.

So that while these programs are aimed directly at the development of a stronger and more vigorous research program for the nation, in addition they are aimed at satisfying certain very specific institutional deficiencies.

This year the programs that I will discuss very briefly, and we'd be very glad to answer questions about the totality of the programs that are in these specific items as they might affect the numbers here, I am really talking about three programs.

The first is the establishment of institutional research grants.

The second is the development of a program for the support of "creation and research through the research professorships."

And the third, this expansion of the program which was begun last spring for the development of clinical and metabolic research units, or more generally speaking, the development of stable institutional bases for modern research of a clinical nature.

I mention the three first without attempting to define any one because we visualize these programs as having sufficient inter-relations that we would hope the individual schools as they address themselves to the problems of using these grants, would realize that although each one may be defined and in the long run will have to be defined by fairly rigid guide lines in the case of the individual school, modification of the rigid guide lines should make it possible for the combination of the three to very effectively supplement the type of grants program for research and training presently contained in the remainder of our general program.

And again I would like to emphasize, before going on and discussing the institu-

tional research grants as such, that in no sense does the establishment of these programs indicate a desire or a willingness for us to depart from the project system contained within broadly defined categories as the heart of our total grant program.

We feel that this is largely basic, if intelligently administered, and we would look upon the new programs to supplement the old and to provide ways and means of solving deficiencies as these have arisen as a result of the growth of the basic problems.

This year we have an authorization to establish what we call institutional research grants, but I would call to your attention that the enabling legislation for this is far broader than is encompassed in our conception of that, of what an institutional research grant is, but rather we are authorized to make grants to institutions of higher learning to aid them in a general way in their programs of research and research training, and its authorization is just about as broad as that.

On the other hand, the legislative history which strikes our initial activities is the program that is called the institutional research grant.

This permits us to expend in grants to institutions up to fifteen per cent of the total dollars that obtain for our research grant item.

This year, we propose to initiate the program of five per cent extending to ten per cent next year and fifteen per cent the third year. We don't know at this point whether we will in fact be able to initiate this program this year, although we expect we shall.

This has to do with the mechanics of legislation, wherein the authorization comes subsequent to the appropriation act, so there is no justification for the expenditure of these funds in the hearings that led to this year's appropriation act.

We are assuming that the congressional committees were fully aware of the implications of this legislation and we will shortly receive word as that it was their intent that this program should be initiated this year.

The amounts that will be distributed are in the order of magnitude—I forget the precise figure—fifteen million dollars. The restriction during the initial year will be limited to schools of medicine, public health, osteopathy and schools of dentistry.

The formula for distribution will involve the making available of a base grant. As far as the medical schools are concerned, this probably will be somewhere in the order of magnitude of $40,000 and thereon supplemental funds will be added in proportion to the research activity that is involved or that can be documented as being characteristic of this year's operation at that university.

In other words, a certain proportion of all sums that are expended for research for the budget or obtained by grants will be added on to the base figure of $40,000.

In the case of funds that are derived from non-federal sources, a premium will be paid in the supplemental grant to encourage the maintenance of an eager and active acquisition of funds from sources other than the federal government.

Now, the details of the thing, if you wish Dr. Kidd to bring to you, I really don't recall the percentage figures, but it is something like this.

A school might get something like $40,000 as a base grant. It might get three per cent of all funds that they have won in successful competition from federal agencies in support of research. They might obtain in addition five to six per cent of the funds that they have successfully obtained from non-federal sources.

Depending upon the size of the program, this might be very little more than the base of $40,000 or may, in the case of certain schools, go up considerably in excess of $200,000.

These funds are for the expenditure for research purposes as defined for the purposes of accounting like Bureau of the Budget Circular A-21.

This defines those activities that are normally considered to be direct expenditures in support of research, those activities that are normally considered to be overhead or indirect expenditures.

In other words, these sums cannot be applied to those items that are purely overhead items.

We would hope that in the minds of the deans and the committees that advise them on the utilization of these funds, that three categories of expenditures would loom very high.

One would be the provision of stable research.

Two would be the provision of resources than cannot be conveniently requested in the conventional project grant.

And three would be the support of such research as the institution deemed to be in its own interest at a stage when they did not wish to apply for outside support.

In other words, this is the area that exploratory investigations of one sort or another can be undertaken or area that an institution may wish to undertake quite seriously wherein there is no formal private or federal supporting agency with an interest in that area.

The second program relates to our ability to provide the funds for the appointment of a hundred research professors.

I would hasten to say that we define a research professor as an individual who applies himself substantially to the acquisition of new knowledge or to the training of scientists.

As best we can figure, this means that roughly 25 per cent of his time can be utilized in the normal pursuit of the undergraduate, academic process, the remainder for graduate training or for research.

We feel that most of the people who will compete successfully for this type of support will have roughly this type of distribution of time, and this in no way would tend to remove individuals who successfully compete for these positions or these appointments, it will in no way remove them from the normal academic life.

It basically adds another faculty position. These would be applied for and granted on a competitive basis in much the same way as our senior research fellowships are currently applied for.

They will be made to the school and be retained in this school with our intent to support them over the long run, but from necessity they will be reviewable, and the initial grant will be for five years, renewable after three, and thereby renewable in five year cycles.

We would hope that the combination of institutional research grants on the one hand and the availability of these research professorships on the other would permit institutions to make permanent commitments to senior personnel with the combination of these two provisions, feeling that they would have adequate coverage in the institutional research grant should something happen to the research professorship as such. It is not that we anticipate any such happening, but this is a possibility.

At any rate, in terms of an individual who is added to the faculty, under such a category, I think he should be of a sufficient stature and of sufficient importance to the educational program of that institution that he would deserve a commitment from the institution as much as he deserves a commitment from us.

But again there is an example of the interplay between these two programs for the most effective use of each.

Now, in establishing a limited number of clinical and metabolic services in the past year, there were eight in the spring and there are eleven more in the process of being undertaken as a result of council action last June.

We are attempting to develop a program that will provide for clinical investigation, the total support of bids for that type of investigation which involves extensive patient manipulation or extensive quantitative observation.

We do not visualize that program as one that will encompass all of our interests in the support of clinical investigation.

For example, there are many activities and clinical investigations that are purely observational in nature, that have been in the past and will continue to be most profitably performed in the future in association with the delivery of superior care to a sick individual.

There are other programs covered by broad project definitions that have predictable need for a certain type of clinical observation, and these needs can be satisfied within the confines of a project grant.

But it would be quite impossible in the conventional project grant to envisage the support at the eventual cost perhaps of half a million dollars a year.

That would envision support of a complex clinical facility of perhaps as few as ten or perhaps as many as 25 or 30 beds with associated laboratories, associated nursing and dietetic studies, associated professional direction, that would provide the broad capability of doing modern clinical investigation under the most ideal circumstances wherein total detailed observations on patients become the essential part of research study.

This type facility is one wherein a patient in a total study period may require hospitalization for a relatively short period of time, but in the meanwhile being carried in the clinic on a general ward population or the like.

This is the expensive type of observational control that in general has not been possible in most institutions across the country.

Now, I would say that we feel that as a resource for teaching, well worked up and documented material may have a very important impact on medical education.

This year then we take off from an establishment of a fairly simple general research resource this attempt to apply the same principles or apply the experience we have acquired this past year in the development of comparable programs of a categorical nature.

I don't feel I have to emphasize to this group that the unintelligent and simple extension of this relatively simple principle could relate over a period of three or four years in fractionation of clinical programs a type of decentralization of responsibility and opportunity that in the aggregate probably would do more harm to clinical investigation than good, so that we propose to develop these programs and give in the institutions one in association with the other so as to enhance the total opportunity within that institution at the same time that we satisfy our obligation in terms of accountability for funds, whether these be obtained for heart, for cancer, neurology, psychiatry, or the more general category, the general scientist.

We are convinced on the basis of our experience to date that this will be possible. But we are equally convinced that it requires a type of almost negotiated grant, if you will that has not been generally characteristic of many of our programs in the past.

And coming down on the plane last night, Halsey Hunt, who has had to develop this clinical metabolic program up to the present time, said, "Please tell the group that they will save themselves headaches and save ours and an inordinate amount of time if we are in the position to receive letters of intent that define the general area of interest of the institution. It can then be used for basis of discussions and clarification of needs and clarification of information."

Where the actual application for the facility really arises after the thing has been clarified, this becomes almost a formality rather than the initiation of a process.

I might say that this thought also carries over to the use of funds of the institutional research grants in the development of nominations for the research professors, and it was with these general thoughts in mind and with the obvious multiplication of our over-all program through these three broad and quite important programs that we have changed our administrative structures at the National Institutes of Health to encompass a new associate directorship which from now on will be occupied, I'm sure with distinction, by Dr. C. B. Kidd, who, many of you may know, for the past ten years or so has been chief of our office of program planning.

His responsibility will be to work with the institutions on one hand, our categorical institutes on the other to evolve processes that will permit the normal evolution of these very complex programs in equally complex situations, so that we satisfy your needs on the one hand and yet can retain the concept of being dealt with flexibility that we cherish so deeply in other programs.

Now, my talk was from a series of pencilled notes and I am sure that there are many things that I didn't cover, Tom. I literally didn't know what to prepare, but these are the things that would appear to me to be most important.

President Hunter then called up President-elect George Aagaard to open the discussion.

DR. Aagaard: As I have listened in on meetings such as this, it is clear that we have problems of developing effective communication with the National Institutes of Health and the United States Public Health Service, first on existing programs, on all those programs that are presently under way, those that are just getting under way which Jim Shannon has told us about, and some that have been in operation for some time and regarding which we still need additional communication.

In addition, we have the tremendous job of helping in the development of new programs to meet needs which are crucial.

I think in this connection, we would all agree on educational facilities construction assistance and scholarship programs. Somehow we must establish priorities.

Sitting in on the session which we had last January, again in the committee meeting this morning, it is clear that it is going to be difficult to develop statements which are clear, which are general enough but still clear and which define our goals.

We are a host of different medical schools operating in a variety of situations with many different relationships locally, and this is going to be a very difficult task, I am sure.

But this, it seems to me, is paramount. We must develop a clear statement of the need as we see it as an association, establishing these priorities.

Then we must develop the channels of communication and support these needs, too, not only the N.I.H. and the United States Public Health Service which represents in effect the executive branch of government, but it seems to me we have to be just as vigorous in developing our liaison with the legislative branch of government.

And as I see it, one of our problems in the past has been developing the support at the state delegation level with the Congress.

It is my observation, limited as my experience has been admittedly, that both at the state and the national legislative level, it is power, it is votes that count and somehow we have to develop a voice at our state levels with our various state delegations to the Congress which will get across our need.

First, we have to develop a clear statement of our need. But we can't stop there and I think it is at the point of expressing ourselves to the state congressional delegations that each dean has to play a very effective role.

I just don't see any other way in which we can get the kind of support that is necessary. All of the surveys, and now we can all take off at least three of them and there have been others, but at least three of them have emphasized that tremendous need for medical manpower, and all of us fully appreciate that we have come to a point now where space, bricks and mortar, educational facilities, call it what you will, is really the crucial issue.

We have all sorts of support already for this. Somehow or other we have to get this picture across. We have to develop the grass-roots support in the Congress. We have got to give Senator Hill, Mr. Fogarty and others the sort of support amongst their own colleagues that just make action necessary.

This is going to be difficult, but certainly I will do everything in my power and I am sure that the staff and executive council, all of us will do this during this next year.

We certainly appreciate all of the help which Dr. Coggeshall and his committee, Dr. Shannon, Dr. Burney, and all these fine people have given us.

I think we have to give them the additional help of the sort I have tried to outline which will put this program across.

Following Dr. Aagaard's remarks, the following discussion took place:

DR. JOHN HIRSCHBOECK: Last winter there was a discussion brought up about expansion and renovation. Is there any movement in that direction at the present time?

DR. HUNDLEY: Well, the administration bill last year did provide for support of state and regional planning with respect to the construction of educational facilities.

Most of the states, as you know, already ha' ' state commissions that are concerned with this area and the provisions there were that the Public Health Service would make available technical assistance to them in that planning activity, but it provided for no financial assistance to them.

The regional bodies were, however, authorized to receive financial assistance with respect to their activities.

All I can comment is what was in the provision, the bills last year, because there is as yet no bill developed for the present session.

This, of course, would be a very important point if it operated through some sort of a state commission. The role of the state commission in the administration proposal last year was an advisory one. Actually it didn't have a legal status at all or no veto powers, but only an advisory function.

But this is one element obviously, I think, should be considered in any legislative proposal for educational facilities instruction.

DR. MANSON MEADS: When can the medical schools expect the ground rules on the institutional grants, in other words, I think we are all attempting to think about that—are we going to get some detailed statement on the ground rules?

DR. SHANNON: Within the next two weeks.

DR. TOM TURNER: Mr. President, Dr. Coggeshall mentioned his committee had hoped to discuss the question of scholarships and loans. It was not possible to do this at the regular meeting this morning because of lack of time, but at the lunch table there was an opportunity to discuss this quite informally with Dr. Hundley and Dr. Shannon.

And I am wondering if there might not be time for those gentlemen to comment a little on this, what seems to me an extremely important potential mechanism for the aid to medical education to the extent to which they think there is a chance of having some scholarship aid enacted, the extent to which there might be a chance of attaching to this some fair share of the educational costs of these students to the medical schools.

PRESIDENT HUNTER: Dr. Turner, I wonder also if it wouldn't be worth pointing out that the association has been extremely active in gathering data on the needs and we, I think, are better armed than we have ever been before in presenting on the loan exactly what the financial status of the class graduating in 1959 was, and I am sure that the secretary's office is aware of this.

But here I think we are in a better position to provide background data of precisely where we stand than we have ever been before.

DR. HUNDLEY: I hardly know where to start on that, Dr. Turner. Perhaps a few comments on some broader aspect.

It seems to me that some sort of a federally aided program for the education of medical students clearly is in the cards. How soon this comes and what priority it will have with respect to, let's say construction of the facilities, is a moot question.

Again, if I had to guess, I would guess that Congress would be more likely to authorize support for the construction or the expansion of medical schools as a first step and perhaps medical scholarships in some form as a second step.

Maybe they would do both at once. I don't know.

PRESIDENT HUNTER: Have you developed any definite thoughts at the moment on this question of balance between loan and scholarship and so forth?

DR. HUNDLEY: We have developed nothing except the alternatives. I mean the thinking amongst the group that is working on this, I can say a few things, perhaps.

One is that we don't feel that a program of what you might call total federal subsidy for the medical student during his four basic years is very likely to be acceptable unless a part of it is on the basis of a repayable or forgivable loan.

One scheme that's been talked about a good deal would be that the federal portion on a state matching grant basis would cover the tuition and fees, not only the nominal tuition perhaps but the full tuition.

Whereas the loan part would in essence cover the living costs during the four basic medical years.

This has been in essence a feature of some of the proposals. Fogarty's proposals, for example, last year.

As near as I can read Nixon's White Paper, this apparently is what he has in mind on the loan part of it, too.

There may be, I am sure, many other things here, Dr. Turner. This is such a big ball of wax I don't quite know where to grab hold of it.

DR. HUNTER: I agree with you, but at 4:15 on the program in the convention hall is Frank Whiting's study of this very matter with the data that I talked about. Have you had access to his material?

DR. HUNDLEY: Yes, I have.

DR. HUNTER: I think it would be of great interest to the group to hear from those that are concerned with this particular problem.

PRESIDENT-ELECT AAGAARD: This question of scholarship as it's been proposed by Tom Turner now really includes two parts.

One is aid to the students and the help that this would be for a recruitment of medical students into medicine. And the other is aid to medical education as such, indirectly by one concomitant grant to the medical schools for each student.

I'd like to ask your advice on this. To what extent do you think this bringing together two things would confuse the issue and render less likely in getting aid to the students?

One is recruitment, an effort to assist in recruitment, and the other is an effort to get financial aid to education.

DR. HUNDLEY: I am quite sure that the part of the plan that would in effect subsidize the institution by providing full tuition costs is inevitably a little hotter political issue than just the expenses to the student himself.

Dr. Shannon may have some ideas on this. I'd like for him to comment on it. But as I see the situation, this would be more difficult, although I wouldn't want to discourage you from considering this very seriously, because I think the Congress does widely recognize the problem.

I think too they will recognize the problem and if they are going to set up a program for getting more medical students, then in effect they are compounding the basic financial difficulties of the school because there will be more students and therefore more cost to them.

DR. SHANNON: Well, just as an interested observer, I may be wrong but I think that the only plan that will have any success that is espoused by this association is a very bold plan that is comprehensive, that takes into account the forces at work, the problems at work, and is devised once and for all to solve a situation that's become increasingly difficult.

I think the plan should recognize that there are problems relating to control of higher education by federal government. This should be supportive or whatever method is supportive, that should dominate.

They should fully recognize that institutions that have segregational practices constitute a barrier to the success of the program, if institutions are involved as institutions, but may not by other devices and other techniques.

I would like to see again as an interested observer, this association present a total package deal that in the hearts and minds of a majority of the membership, not necessarily all, to face up to the issues and provide a program that will resolve them.

Any one of a number of programs can be outlined and one that I have discussed at some length with some of the association, I'd rather not discuss it as a representative of the Public Health Service here, will come to about one hundred twenty-five million a year with approximately fifty of that one hundred twenty-five million dollars of a repayable type, become possible through devices and the expenditure of this money, and I point out now that our budget in support of research this year is at the level of six hundred and fifty million dollars.

I don't think you are going to scare the Congress if you can put up a good case for it by putting up a good price. This really does a job.

I think if this is approached in a tentative fashion, if half measures are proposed, the Congress is very intelligent and they realize this does not get into the heart of the issue, and I think this will be brushed aside and you will be in precisely the same position now.

I think time is all in favor of definitive aid to medical schools at this time. There is a move across the country for some type of aid to foster schools of higher education across the board.

This is in recognition that approximately ninety per cent of the graduate students in departments of science around this country are supported by federal grants of one sort or another.

This is one of the reasons why it is possible to attract our brightest people into the physical sciences as opposed to obtaining a substantial number of them in the medical sciences.

I think that we are in a critical point in time where both parties in their normal statements, and both candidates in their editions have frankly said they are willing to face up to resolving the problem of a critical shortage of physicians in this country.

I think it is up to this association to tell them how this can best be done, not in small measures, but in very broad strokes.

I think the incidental things could be argued out later. I think that this will be won or lost in the initial discussions that you people have with some of the leaders of the Congress very early and long before there is a fight about how you cross the T's and dot the I's.

But I would emphasize too that you will have a lot of opposition. There are other schools of higher education who are in equal difficulty and they say to you through your Association of University Professors or College Presidents that there is no reason which at this time medicine should receive special attention.

I think you have to be fully prepared for opposition from within the other segments of higher education, and despite that to be able to put on the table your reasons why you think medicine deserves special attention at this point in time.

So I think that these are my comments and as Tommy knows, I have said these on a number of occasions. I think the time has come when this association has to stand up as an association and be counted.

PRESIDENT HUNTER: Thank you, Jim.

DR. HUNDLEY: I'd like to add just one more thing. I agree with everything that Dr. Shannon said, but I would, I think, be inclined to add at least one element to it so far as the association plans which I emphasized in my remarks earlier, that I do think even though the association does come up with a total comprehensive program which

I agree would be very desirable, that it should at the same time be prepared to compromise and have some reasonable priorities for compromising if you can't get the whole package.

PRESIDENT HUNTER: Any other comments?

DR. JOSEPH HINSEY: There's been a discussion here today that is very important to all of us and I'd like to make the suggestion that we have a stenographic report the remarks that have been made by these friends of ours who have come today, and that this be made available just as soon as possible. But I don't mean in two weeks. I would mean that if we have the stenographic help available that these materials be in our hands before we go back to our homes, before the end of this meeting.

Now, this situation may be something that comes up very shortly and there have been a number of questions and a number of things raised here today that I think all of us would like to think about.

And we may be called upon for opinions sooner than we think. For that reason, I don't think we can afford to wait until the staff gets back home to do this. This may be an impossibility.

PRESIDENT HUNTER: I think this is planned, Joe, and certainly we will do the best we can with it.

DR. COGGESHALL: I think from the standpoint of the membership, the Association of American Medical Colleges is not ready to support or perhaps modify the administration's position.

They have certain limitations within the budget, and many other pressures there, and I think that certainly we must almost be impolite in forcing our needs upon them and support them where possible, and oppose them where necessary.

But I do think it is necessary for us to have our own independent program and to state it in pretty forceful terms.

Now, we are handicapped by the fact that we cannot get a unanimous opinion and we never will.

But throughout all of our conversations, and Joe Hinsey brought it up every time quite correctly, that we are to maintain our integrity as educational institutions. We must have a certain amount of trust from the government, but we must not expect them to hand that to us. We must assert ourselves and maintain our position as educational institutions wherein our main function is to teach and provide opportunities for research, et cetera.

The meeting adjourned at 3:50 P.M.

Presentation of Borden and Flexner Awards

Annual Banquet

DIPLOMAT HOTEL
HOLLYWOOD BEACH, FLORIDA
OCTOBER 31, 1960

THE BORDEN AWARD

DR. HOMER W. SMITH

Mr. President and members of the association, ladies and guests, it is my pleasure tonight to present for the Borden Award a colleague and friend whom I have known intimately for 28 years, specifically since 1932 when he joined the staff of New York University School of Medicine.

Doctor Robert Franklin Pitts would today be characterized as primarily a renal physiologist, but this is only because the kidney presents so many fascinating quantitative problems that other areas of physiology have not been successful in competing for his interest.

And in any case, a renal physiologist is by no means confined to the study of the kidneys: All the body fluids and body tissues, yea, even the central nervous system and man's environment, come necessarily and legitimately within his province. So let's just call Bob a physiologist, which in the original sense implied one who was interested in all aspects of physics, or nature.

During his graduate work at Butler University Dr. Pitts engaged in general physiology, and received his Doctorate of Philosophy in this subject at the Johns Hopkins University of Baltimore in 1932. Out of 110 titles which I have searched in his published bibliography, only six of them deal with general physiology.

But perhaps a latent interest in the kidney encouraged him to come to New York University School of Medicine in 1932, though shortly after this time he decided to supplement his experience in general and medical physiology by taking the degree of Doctor of Medicine on a part-time basis.

The Doctorate of Medicine was conferred by New York University in 1938. I suppose that Bob knows this, because things do leak out, but while working for this M.D. degree he never made a grade below A. This is a record which had never been equaled in our school before that date, and I dobut that it has been equaled since.

It bespeaks, of course, the excellence of his instructors as well as his own aptitude and diligence. I tried to persuade him to take an internship, but to no avail. Had I succeeded, medicine would doubtless have gained a distinguished professor and physiology would have lost one, so we are all to the good.

Dr. Pitts left us in 1938 to work for a year as a Rockefeller Fellow in the Medical Sciences at the Neurological Institute of Northwestern University, and the succeeding year he spent at the Johnson Foundation for Medical Physics at the University of Pennsylvania.

From these two experiences there emerged fourteen papers having to do with the central nervous system and primarily with pioneering studies on the nervous control of respiration, studies which today remain historically definitive landmarks.

He returned to New York University as Assistant Professor of Physiology in 1940, but in 1942 he was, by the inexorable seduction of our democratic processes, stolen from us by Cornell University Medical College (our antagonists of old) to become Assistant Professor and later, Associate Professor of Physiology.

Then he was pirated from Cornell to Syracuse University College of Medicine, to become Chairman of the Department of Physiology, but Cornell paid Syracuse back (and in an indirect sort of way paid a compliment to New York University) by seducing him back to the metropolitan area as chairman of their own Department of Physiology in 1950, a post which he holds at this time. Peace unto Bob and Cornell, may they remain joined for many a year.

It would be superfluous to enumerate the many extramural services which our recipient of the Borden Award has rendered to physiology and cognate sciences by way of the Josiah Macy Foundation, the Lederle Medical Faculty Awards Board, the Life Insurance Medical Research Fund, the Unitarian Services Graduate Committee (he has served on two missions abroad), the National Institutes of Health, the Army Medical Services Graduate School and the National Research Council's Committee on Fellowships in the Medical Sciences; but I would be remiss if I failed to mention that he was president of the American Physiological Society during the past year, and that he is president of the Harvey Society during the present year.

If there be an uppermost category which can be attained sheerly by intrinsic scientific merit and unselfish service to his colleagues in science, Bob certainly would belong to that category. His status in these respects is indicated only in part by membership in the National Academy of Sciences, the American Academy of Arts and Sciences, the Society for Clinical Investigation, and other scientific societies, and by his election to several honorary scientific fraternities.

Despite the diversity of his interests, I claim Dr. Pitts as primarily a renal physiologist from the fact that out of his 110 publications, some 66 represent original investigations in renal function, including several on the comparative physiology of the kidney, plus an additional thirteen which deal with this subject in Howell's *Textbook on Physiology*, the *Annual Reviews of Physiology*, *Physiological Reviews* and other summarizing essays.

There is one point about Bob which has been especially gratifying to me, and which I am sure was not known to the Borden Award Committee. Namely, I have never been associated with a man who was a better master of the English language, or more competent in respect to preparing a manuscript for publication. As a matter of courtesy, while he was at New York University he always passed his manuscripts across my desk, but the most drastic change I was ever able to suggest was a trifling one in punctuation, never one in sentence or paragraph structure, or having to do with clarity and accuracy in exposition.

Through the years I cherish this fact with ever deepening appreciation because the gap between the capacity for verbal exposition and the capacity for scientific research seems to be ever widening.

There is a second matter, even more important, which never appears in the published biography of a man, and that is the number, the caliber, and the fate

of younger men who, to fall back on common parlance, have worked with him.

Among such men, to name but a few, are:

Roy C. Swan, Professor of Anatomy, Cornell University Medical College; David D. Thompson, Associate Professor of Medicine, Cornell University Medical College; Gerhard H. Giebisch, Associate Professor of Medicine, Cornell University Medical College; Richard H. Kessler, Assistant Professor of Physiology, Cornell University Medical College; Robert S. Alexander, Professor of Physiology, Albany Medical College; Henry D. Lauson, Professor of Physiology, Albert Einstein College of Medicine; William D. Lotspeich, Professor of Physiology, University of Rochester School of Medicine; Otto W. Sartorius, Assistant Professor of Surgery, State University of New York, Upstate Medical Center; and Kathleen E. Roberts, U.S.P.H.S. Hospital, San Francisco.

In so far as any profit may have accrued to him by his association with us at New York University, we are entitled to look upon him as one of the prize names in our scientific roster.

It is for all these reasons, Bob, that I have such great personal pleasure in presenting you for the Borden Award for Outstanding Research in Medicine.

You have more than earned it by a rare combination of ability, a capacity for sustained work, and by a personality which has made everyone who has known you a loving and grateful friend. Heartiest congratulations from all your friends.

DR. ROBERT F. PITTS

Dr. Smith, President Hunter, ladies and gentlemen, sitting here this evening I was convinced that I had no words adequate to this occasion, but after listening to Dr. Smith's presentation, I can hardly wait to hear what I have to say.

I am highly honored by being made the recipient of the Borden Award in the Medical Sciences of the Association of American Medical Association. I deeply appreciate it the more so because I have always considered that teaching is my vocation and research my avocation. I accept the award humbly, recognizing my indebtedness to many.

First and foremost, I am indebted to Homer Smith for 6 years of research training and guidance in renal physiology between the years 1932 and 1938. It is especially appropriate that I receive a research award from him, and I appreciate it all the more because he presents it. I am also indebted to Homer Smith and to the late Dean John Wyckoff, who together made it possible for me to receive a medical education.

Secondly, I am indebted to those who created a favorable environment for my research endeavors, including the late Stephen Walter Ranson, Detlov Bronk, the late Eugene DuBois and the deans under whom I have worked as a department chairman, Herman Weiskotten, Joseph Hinsey, Hugh Luckey, and John Deitrick.

Thirdly, I am indebted to the United States Public Health Service, the American Heart Association and the Life Insurance Medical Research Fund, which have generously supported my investigations.

On behalf of all, I gratefully and with humility accept this award.

THE FLEXNER AWARD

The Abraham Flexner Award is given for "distinguished service to medical education."

DR. ROBERT A. MOORE

Mr. President and honored guests and ladies and gentlemen I have the honor to present for the Abraham Flexner Award for Distinguished Service to Medical Education, Herman Gates Weiskotten.

It is difficult to know where to begin in describing, even briefly, a career which has extended over a period of half a century.

Dr. Weiskotten, or as he is known to everyone, Herman, was appointed an instructor in pathology at his alma mater, Syracuse University Medical School, in 1910. By 1917 he was Professor of Pathology, by 1922 he was acting Dean of the college, and in 1925 became Dean, which position he occupied until 1951, a total of twenty-nine years of service.

During a part of this time he also served as director of the University Hospital of the Good Shepherd. Commissioner of Health of the City of Syracuse, pathologist to the Coroner's Department of Onandaga County, a member of the Public Health Council of the State of New York, and numerous other public bodies.

These many services to his school, to his city, to his county, and to his state were not enough to satisfy the dedication of this man to public service.

Between 1934 and 1937 as the representative of the Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges, he conducted a comprehensive survey of American medical schools, which for more than 15 years provided a base line from which the progress of medical education and of individual medical schools could be measured.

I cannot resist, at this point, Mr. President, introducing a personal anecdote. In the middle 1930's I was invited to serve as the guest pathologist at a conference at the University of Pennsylvania.

While there I paid a courtesy call on Dr. Stengel. He told me Dr. Weiskotten had just carried out a survey of the school and Dr. Stengel was most emphatic when he said, "You know that man Weiskotten wanted to know everything about this school, including the color of the eybrows of the rabbits we use." In this survey Herman carried on the tradition of high standards which had been set by Abraham Flexner in his original survey.

During these years interspersed between papers on "The Significance of Myeloid Metaplasia of the Spleen," "The Normal Life Span of the Neutrophil Leukocyte," and the "Histopathology of Superficial Burns," contributions appeared on "Present Tendencies in Medical Practice" in 1927, "What Can a Community Do When It Is Not Yet Ready To Establish a Mental Health Clinic" in 1932, "Developments in Education in Preventive Medicine and Public Health" in 1933, and "Observations on the Teaching of Obstetrics" in 1938.

In the decade from 1947 to 1957 he served as chairman of the Council on Medical Education and Hospitals of the American Medical Association. His wisdom, his moderation and his statesmanship in this position provided strength and stability during the period when medical education and medical schools were under severe pressures from many quarters.

This was a period of hysteric demands for increasing enrollments in medical schools overnight by 50 or 100 per cent. This was a period of financial crisis. This was a period in which the growing pains of the specialty board movement were felt with particular awareness. And, this was a period in which the basic

structure and objectives of medical education were being widely challenged and re-examined.

Throughout all this period, Herman, by his calmness and wisdom, helped all concerned to think problems through clearly and to keep their vision sharply focused on the major objectives and lasting values of medical education.

When he saw that his beloved Syracuse University College of Medicine would continue smoothly and rapidly as a unit of State University of New York, he retired, or at least he thought he was going to retire to a spot overlooking a lake in that town which only he can spell—Skaneatales.

But, many others had designs on him. He continued on the Council and in 1955 accepted appointment to an administrative post on the Medical Advisors Board of the Howard Hughes Medical Institute. This task took him away from Skaneatales to spend the major part of his time in Miami, Florida. However, he never failed to appear where ever medical educators were gathered or medical education was being discussed.

Both before and after his retirement, he made significant contributions to the program of the Joint Commission for the Accreditation of Hospitals, the National Board of Medical Examiners, of which he was vice president from 1954 to 1957, the National Fund for Medical Education, the American Medical Education Foundation, Alpha Omega Alpha, the Advisory Board for Medical Specialties, and many others.

Mr. President, I present for the Abraham Flexner Award in 1960, Herman Gates Weiskotten, the type of man who well exemplifies the driving spirit which marked Abraham Flexner in his efforts to dignify medical education in the United States.

DR. HERMAN G. WEISKOTTEN

I suppose it would be inappropriate to question as I should, the validity of Dr. Moore's comments.

However, I do wish him to know how greatly I appreciate the generosity of your committee and the Association of American Medical Colleges in selecting me as a recipient of the Flexner Award.

I suppose that public recognition of alleged accomplishment is frequently embarrassing, disheartening, and even dangerous.

I am reminded of an uncle of mine who served as a Private in the Civil War. Many years later as an old man, he was asked to lead the Memorial Day Parade in his home town near Skineatiles—that is the way you pronounce it—it was a kindly gesture to an old soldier.

The unfortunate result was that he soon acquired the notion that he had won the war.

The Flexner family has always meant much to me. I suppose that I am one of the few, and possibly the sole survivor who was under fire in the Flexner blitz that won the war on medical education in the early years of this century.

I well remember his visit to Cedar Keys. He and Dr. Caldwell entered a classroom and there they found me just fresh out of medical college attempting to teach a class in pathology.

In subsequent years, I had little contact with Abraham Flexner. However, I do remember that some 10 years later, I had a very stimulating conversation with him when he stopped off in Syracuse on his way to Rochester.

You all know what he did at Rochester. Years later, as a member of the New York State Public Health Council, for 16 years, I had an opportunity to be with his brother, Dr. Simon Flexner, one day a month.

Dr. Simon Flexner was also a member of the State Public Health Council and my association with Simon Flexner were the most inspiring experiences of my life.

This Flexner Award means much to me because it comes from the Association of American Medical Colleges where I first developed a real interest in medical education.

And although my chief interest in life has been medical education and the medical schools of the country, during the past 25 or 30 years, my official connection has been with organized medicine, with the same interest rather than with this association.

However, I believe that since 1922 I have not missed but one meeting of this association, and that because I was out of the country.

If I had made any contribution to the advancement of medical education over these years, I am very happy.

At the present time, medical education is in a very critical period in its history and I hope that we will all of us never lose sight of the fact that the primary goal and responsibility of the medical schools of this country is the training of physicians for the continuing improvement of the medical care of the public.

I'd like to assure you that my children and my grandchildren will always cherish the memory of this award to me.

The Seventy-First Annual Business Meeting

Diplomat Hotel
Hollywood Beach, Florida
November 1, 1960

Dr. Thomas H. Hunter, presiding

ROLL CALL

The Secretary declared representatives of all institutional members to be present

INTRODUCTION OF NEW DEANS

Dr. Barnes Woodhall, Duke University
Dr. C. Arden Miller, University of Kansas
Dr. Benjamin Barrera, University of the Philippines
Dr. H. Rawling Pratt-Thomas, Medical College of South Carolina
Dr. James E. McCormack, Seton Hall
Dr. Richard L. Meiling, Ohio State
Dr. Lamar Soutter, Boston University
Dr. S. Bernard Wortis, New York University
Dr. Stephen Marsh Tenney, Dartmouth
Dr. Robert L. Brown (Acting Dean), University of Buffalo

INTRODUCTION OF FOREIGN VISITORS

Scotland—Dr. I. P. C. Murray, Professor of Endocrinology, University of Glasgow

India—Dr. Joglekar, Dean of Seth G. S. Medical School, Bombay
Dr. Mahalingam Thangavelu, Dean of the Medical College of Trivandrum, Kerala State
Dr. C. Lal Malhotra, University of Delhi
Dr. Vishanu Duh Mullick, University of Delhi

Indonesia—Dr. Poorwo Soedarmo, Director of the Nutrition Istitute and Assistant Dean of the Medical Faculty in Djakarta

South Africa—Dr. I. Gordon, Dean, Faculty of Medicine, University of Natal, Durbin

England—Dr. John Ellis, Secretary, Association for the Study of Medical Education, London

Jamaica—Dr. D. B. Stewart, Acting Dean, Faculty of Medicine, University of the West Indies, Kingston

Mexico—Dr. Jaime Fuentes, Vice-Dean, Escuela de Medicina, Universidad de Guanajuato, Leon, Gto.
Col. M. C. José Luis Marín-Servín, Dean, Escuela Medico-Militar, Mexico, D.F.

Dr. Gilberto Molina, Universidad de Nuevo Leon, Monterrey

Dr. Ramiro Montemayor, Facultad de Medicina de la Universidad de Nuevo Leon, LaFama, Nuevo Leon

Dr. Gonzalo Caballero, Facultad de Medicina, Universidad de Nuevo Leon, Monterrey

Dr. E. G. Pardo, University of Mexico, Mexico City

Dr. Guillermo Santoscoy, Dean, Facultad de Medicina, Universidad Autonoma de Guadalajara, Guadalajara, Jal.

Dr. Mentor Tijerina de la Garza, Dean, Facultad de Medicina, Universidad de Nuevo Leon, Monterrey, Nuevo Leon

Dr. José Miguel Torre, Medical School of San Luis Potosi, San Luis Potosi

South America—Dr. Alfonso Aguirre-Ceballos, Dean, Facultad de Medicina, Universidad de Antioquia, Medellín, Colombia

Dr. Eduardo Anzola, Medical Director, Hospital Universitario del Valle, Cali, Columbia

Mr. Humberto Echeverri, Administrator, Hospital Universitario San Vicente de Paul, Medellín, Colombia

Dr. Gustavo Fernández, Dean, Facultad de Medicina, Universidad del Cauca, Popayán, Colombia

Dr. Ernesto Gutiérrez-Arango, Dean, Facultad de Medicina, Universidad de Caldas, Manizales, Colombia

Dr. Francisco Haydar-Ordage, Dean, Facultad de Medicina and Ciencias Naturales Universidad de Cartagena, Cartagena, Colombia

Dr. Alejandro Jiménez, Dean, Graduate School, Military Hospital—Colombian Medical Center for Graduate Studies, Bogotá, Colombia

Dr. Hernan Mendoza, Graduate School of the Hospital Militar, Bogotá, Colombia

Dr. Bernardo Moreno, Dean, Facultad de Medicina, Universidad Pontificia Javeriana, Bogotá, Colombia

Dr. Alfonso Ocampo, Minister of Public Health, Bogotá, Colombia

Dr. Raul Paredes-Manrique, Dean, Facultad de Medicina y Ciencias Naturales, Universidad Nacional de Colombia, Bogotá, Colombia

Dr. Alfonso Vargas-Rubiano, Chief, Department of Pediatrics, Military Hospital-Colombian Medical Center for Graduate Studies, Bogotá, Colombia

Dr. Gabriel Velazquez-Palau, Dean, Facultad de Medicina, Universidad del Valle, Cali, Colombia

Dr. Ivar Hermansen, Dean, Universidad de Concepcion, Facultad de Medicina, Concepcion, Chile

Dr. Amador Neghme, Secretary, Facultad de Medicina, Universidad de Chile, Santiago, Chile

Dr. Alberto Hurtado, Dean, Facultad de Medicina, Universidad Nacional Mayor de San Marcos de Lima, Lima Peru

Dr. Jose Henrique Mata-Machado, Facultad da Medicina, de Minas Gerais, Belo Horizonte, Brazil

Central America—Dr. Jose Fajardo, Professor of Internal Medicine, Facultad de Medicina, Universidad de San Carlos, Guatemala City, Guatemala

Dr. Antonio Peña-Chavarría, Dean, Facultad de Medicina, Universidad de Costa Rica, San José, Costa Rica

INDIVIDUAL MEMBERS

A total of 564 individual members were voted into the Association.

EMERITUS MEMBERS

The following individuals were voted into emeritus membership in the Association:

Mr. George W. Bakeman, Medical College of Virginia
Dr. Dayton J. Edwards, Cornell University Medical College
Dr. Harley E. French, the University of North Dakota School of Medicine
Dr. Russell Henry Oppenheimer, Emory University School of Medicine
Father Alphonse M. Schwitalla, S. J., Dean Emeritus, St. Louis University School of Medicine
Dr. Joseph T. Wearn, Western Reserve University School of Medicine

REPORT OF THE NOMINATING COMMITTEE

JOHN S. HIRSCHBOECK, *Chairman*

The following group of officers was offered by the Committee:
President-Elect, Dr. Donald G. Anderson
Vice-President, Dr. Stanley W. Olson
For Council membership, for a 3-year term, Dr. George A. Wolf, Jr., and Dr. George T. Harrell

The report was accepted and the nominees were elected by unanimous ballot. Vice-President Donald G. Anderson assumed the Chair.

REPORT OF THE CHAIRMAN OF THE EXECUTIVE COUNCIL

THOMAS H. HUNTER

The report of the Chairman of the Executive Council is limited to the most important of the past year's Council actions and recommendations.

Gifts, Grants and Assignments:

First, an oil portrait of Dr. Abraham Flexner, a gift of Mr. Joshua Glasser, the artist, Mr. Albert Jackson, which hangs in the lobby of the Association office."

Second, a gift of a film library of some 500 teaching films from the American Cancer Society which is added to our film library."

Third, the assignment by McGraw-Hill of a copyright to the Deitrick-Berson survey of medical education, which is being reprinted and is now available."

Fourth, new grants to the association during the year were as follows:

$50,000 from the Commonwealth Fund for general purposes.

$50,000 from the Sloan Foundation to finance a study of practice of full-time faculty and its impact on medical teaching.

$8,000 from the Rockefeller Foundation to provide travel expenses for Latin American Deans to this meeting of the A.A.M.C.

$15,000 from the E. R. Squibb and Company to finance the expanding activities of the Committee on Audio-Visual Education."

Beginning January, 1961, the printing of *The Journal of Medical Education* will be moved from the University of Chicago Press to the Service Printers, Inc., Chicago. This move should result in printing schedules that will permit items of current importance to appear more promptly."

The Executive Council has given careful consideration to reports of:

The Executive Director,

The Committee on Research and Education and the Director of the Division of Basic Research,
The Director of the Division of Operational Studies,
The Secretary,
The Treasurer,
The Report of the Editorial Board and Editor,
The Committee on Continuation Education,
The Committee on Financing Medical Education,
The Committee on Licensure Problems,
The Committee on Veterans Administration-Medical School Relationships,
The Committee on Medical School-Affiliated Hospital Relationships, and
The Committee on Medical Education for National Defense"
"Mr. Chairman:
The Executive Council recommends the acceptance of these reports." Seconded. Voted

Note: With the exception of the report of the Executive Director, which appears early in these proceedings, the reports of these committees follow:

JOINT REPORT OF THE COMMITTEE ON RESEARCH AND EDUCATION AND THE DIRECTOR OF THE DIVISION OF BASIC RESEARCH

HELEN HOFER GEE

During 1959-60, the principal efforts of the Committee and the Basic Research Division staff have been directed toward (1) data collection for continuation of a longitudinal study of the characteristics of medical students; (2) planning a new series of A.A.M.C. Institutes; (3) development of a new program and contract for administration of the Medical College Admission Test; (4) continued development of the activities of the Continuing Group on Student Affairs and other service and regular reporting programs; (5) publication of the 1960-61 edition of *Admission Requirements of American Medical Colleges* in a new format. Each of these will be discussed in detail in separate sections of this report.

The committee takes this opportunity to express its gratitude to the Commonwealth Fund for continued financial support of both the basic research and Teaching Institute programs. The significant progress these programs have made over the past several years is due in large measure to the financial security the Fund's grants have provided. Recognition is due also to the National Institutes of Health for their continued support of the Teaching Institutes through which the stature of American medical education increases year by year, both nationally and internationally.

ADMINISTRATION

Dr. Robert J. Glaser, Dean of the University of Colorado School of Medicine, continues to serve as chairman of the committee. New appointments to the committee this year include: Doctors Peter V. Lee, Associate Professor of Pharmacology and Medicine and Associate Dean at the University of Southern California School of Medicine; Morton Levitt, Associate Professor of Psychiatry and Assistant Dean at Wayne State University College of Medicine; and George A. Wolf, Jr., Dean and Professor of Clinical Medicine at the University of Vermont College of Medicine. Continuing on the committee are: Doctors George P.

Berry (Harvard), John L. Caughey, Jr. (Western Reserve), John T. Cowles (Pittsburgh), Ward Darley (A.A.M.C.), Helen H. Gee (A.A.M.C.), Thomas H. Hunter (University of Virginia), Carlyle Jacobsen (SUNY, Upstate), Julius B. Richmond (SUNY, Upstate), and William Schofield (Minnesota).

No changes have occurred at the professional and supervisory levels of the Basic Research Division staff during the past year. The Association's Executive Council has approved a 6 months' (January–June, 1961) leave of absence for Dr. Gee, who will hold a lectureship at the University of Edinburgh and consult with the British Association for the Study of Medical Education on the development of medical educational research. During July and August, Dr. Gee will visit various medical educational centers in Europe. The Assistant Director, Dr. Charles F. Schumacher, will be Acting Director of the division during Dr. Gee's absence. The Commonwealth Fund has awarded a fellowship grant to Dr. Gee which enables her to accept the appointment at the University of Edinburgh and to visit continental medical centers.

RESEARCH ON STUDENT CHARACTERISTICS

This program of studies was launched in 1956. It aims broadly to achieve a better understanding of the personal qualities and backgrounds of today's new physicians with a view toward (1) assessing the adequacy of diversity in talent to meet changing needs for medical services; (2) providing factual information on which selection policies may be based; (3) providing tools for counseling students at the high school and college levels as well as for medical students making decisions about careers within medicine; (4) contributing generally to the body of knowledge in the area of behavioral measurement. A description of the several areas of investigation follows:

A. Longitudinal Study of Student Characteristics:

Current Status.—Scores on the Strong Vocational Interest Blank (SVIB), the Edwards Personal Preferance Schedule (EPPS), the Allport-Vernon-Lindzey Study of Values (A-V-L), and personal history data were obtained on entering students in 28 medical schools in the fall of 1956. In 1957 attitude data were obtained from sample from each class in conjunction with the 1957 Teaching Institute. In 1958, at the end of the second year in medical school, peer evaluations were obtained. In 1960, near the end of the fourth year, the interest, personality, and values tests were readministered, peer evaluations were repeated (some new items), additional personal history and future plans data were obtained, an originality test, and an experimental interpersonal perception test were given, and students' views of the medical school environment were obtained. Part II National Board examination scores were obtained for all students at 21 schools in the sample, and for credit candidates (17 to 99 per cent of the class) at five schools. Rank-in-class grades throughout medical school have been obtained for students in 27 schools and separate faculty evaluations of student performance have been obtained from varying numbers of clinical departments in most of the schools.

A technical paper (based primarily on the 1956 first-year student data) describing variation in the characteristics of present-day medical students, implications for education, and some aspects of the methodology of behavioral measurement has been published by the University of California Center for the Study of

Higher Education (1). An expanded and less technical version of this paper will be prepared for publication in *The Journal of Medical Education* or another suitable journal. Tables of means, standard deviations, correlation coefficients, and other descriptive statistics are available in mimeographed form for various subgroups in the study. Studies in the following areas are in progress:

1. *Student accomplishment:* A study will be made of the degree of which measures of abilities (MCAT), interests, personality characteristics, and values are predictive of later performance as measured by grades, national board scores, peer ratings, and faculty ratings. Relationships among the various performance measures will also be investigated to determine (*a*) how many and what types of different dimensions of performance these criterion measures represent and (*b*) to what degree they provide independent and overlapping information. A special study will be made of the kinds of discriminations departments make in rating students. Finally, an attempt will be made to outline techniques of evaluating performance and to show how these are related to objective prediction indices.

2. *Changes in student characteristics during medical school:* In the spring of 1956, fourth-year students in 21 medical schools took the same tests that were administered to first-year students in the fall. Significant differences between first- and fourth-year students were found in all schools; the types of characteristics and directions of difference were in some cases highly consistent, in others widely divergent. The extent to which differences between first- and fourth-year students are a function of the students' medical educational experiences (confounded with increased age), and of differences between groups will be determined with the availability of the retests on the 1956 first-year students. Definitive information will be made available about the kinds of changes in measurable characteristics that occur as a result of the medical educational experience, and how these changes vary from school to school in terms of such dimensions as value systems (e.g., theoretical, economic, social, etc.), personality characteristics (e.g., achievement drive, interest in why people behave as they do, desires to give and receive help, aggression, etc.), and interests (e.g., similarity of interests to physicians, engineers, social workers, business men, etc.).

3. *Personal characteristics ratings:* (*a*) One study is investigating the number and kinds of dimensions along which students can discriminate in rating their fellow students. The possible existence of a "general eminence" factor in fellow-student ratings, and the question of how various characteristics (such as ratings of "desire to learn," "functional knowledge of medicine," "interpersonal sensitivity," etc.) combine to form more global dimensions (such as "good student," "potential teacher-researcher," "potential general practioner," etc.) will be studied. A factor analysis of the peer evaluations obtained at the end of the second year has been completed by R. J. Wherry of Ohio State University and is available in mimeographed form, (2) (*b*) The relationship between fellow-student ratings and subsequent career choices will be determined. (*c*) The relationships between peer ratings and measures of ability, values, interests, and personality characteristics will be investigated. This study should permit us to gain insight into what kinds of traits lead fellow students to consider their colleagues good students, or promising candidates for a career in research or general practice, etc. (*d*) The stability of peer ratings from second to fourth year in medical school will be studied.

4. *Career choice:* Study of the personal characteristics of students planning careers in different specialties was begun with 1956 fourth-year students. It was found that nearly half of this group changed their plans during the internship year, and as a consequence intensive study of the longitudinal sample will be delayed until the students have completed a year of intership. Studies have been made of the 1956 graduates who persisted in their career choices through the internship year. A general description of differences in the characteristics of specialty-choice groups is given in the "Berkeley paper" (1); patterns of change during the internship year are described and a more intensive discussion of the characteristics of graduates choosing careers in Obstetrics and Gynecology is given in a paper prepared for a study committee of the American Gynecological Society (3); the characteristics of graduates choosing careers in Pediatrics were reported at a Ross Pediatric conference and are available in the published proceedings (4).

Studies of the longitudinal sample will be made to determine whether differences in characteristics of career-choice groups are stable among classes graduated four years apart. The relevance for career choice of personal characteristics measures obtained at the time of entrance to medical school will be investigated. An attempt will be made to obtain test data from eminent practitioners and teacher-researchers in various specialties. These can be compared with first- and fourth-year data, and ultimately instruments that will be helpful to students in planning their professional careers will be made available.

5. *Medical school environment:* (*a*) Students' perceptions of their medical schools will be described in terms of faculty attitudes, research activity, social and intellectual pressures, etc. (*b*) The roles of measured personal characteristics and school environments in determining student performance are being studied. Schools whose students had similar patterns of abilities and other personality characteristics have been combined into groups and it is hypothesized that the students in these schools should perform similarly on National Board exams and should show similar patterns in their choices of careers. Correspondence with and departures from hypothesized relations will be studied with respect to similarities and differences in school environments as perceived by the students and as suggested by taxonomies such as enrollment restrictions, school budgets, geographic location etc.

B. Studies of the Utility of Personality and Interest Tests Administered to Medical School Applicants:

Current status: In a doctoral dissertation, a "distortion" scale was developed for the Strong Vocational Interest Blank (5). A study of the Edwards Personal Preference Schedule has also been completed which demonstrates again that when applicants believe these kinds of tests will be used in the medical school selection process, they are likely to reply somewhat differently than when they believe the tests are not to be used. A paper reporting the latter study is in preparation (6). Data which investigate the relation of EPPS scores obtained under different conditions to first-year grades in medical schools have been obtained and are partially analyzed. The multiple correlation of EPPS scores of students who believed the test was to be used in selection is slightly higher than the correlation based on the scores of students who believed the test was to be used only for research purposes. Relations between EPPS scores of applicants and subsequent

success in gaining admission to medical school are also being studied. This project aims at determining whether admission committees implicitly evaluate certain normal personality traits as they move through the selection process. The data for all of these studies are drawn from administration of the EPPS to all students who took the MCAT in 1957.

C. Methodological Studies of Problems in Behavioral Measurement:

1. A paper read at the 1960 American Sociological Association meetings reported ratings made by medical school applicants regarding the desirability of various personality characteristics in a physician, and the relationships between these desirability ratings and the personality patterns (as measured by the EPPS) of the applicants who made them. Traits that were considered most desirable in the physician were the needs to solve difficult problems (achievement), to help others (nurturance), to work hard for long periods of time (endurance), to be interested in the problems of others (intraception), and to behave in an orderly fashion (order). Traits considered comparatively least desirable were the needs to criticize others (agression), to feel guilty or inferior (abasement), to seek the limelight (exhibition), to look to others for help (succorance), and to be independent and unconventional in behavior (autonomy). Generally, the relationships between the applicant's own personality traits and his ratings of these traits were positive but low (7).

2. A paper read at the 1960 American Psychological Association meetings reported the absence of correlation between scores on the Allport-Vernon-Lindzey Study of Values and tendencies to make socially desirable responses to personality test items (8).

3. A doctoral dissertation completed in 1959 investigated the relative merits of several item-selection techniques for building new interest and personality scales. In this study, the same pool of items was used to build three different types of scales. These were compared with respect to their ability to differentiate among students planning different types of medical careers (9).

4. A doctoral dissertation has been completed which investigates the relative merits of various methods of multivariate analysis for predicting criterion behaviors (in this case grades). The results were inconclusive but suggested that the inclusion of multiplicative relations among variables added little to the information obtainable from linear combinations of variables (10).

D. Miscellaneous Studies:

1. The relation of geographical restrictions on enrollment and level of school expenditure to average MCAT scores of enrolled students has been studied. In general, severe restriction and low expenditure level are found to be related to low average MCAT performance. Lack of restriction and high expenditure level do not insure a high-ability student group, however. A report of this study will be submitted to *J. M. Educ.* (11).

2. A study of changes in MCAT scores on repeat testing has been made. In general, students at all ability levels show gains in score upon retesting, but high-ability students tend to gain more on the Science section and less on the Verbal and Quantitatives sections than low-ability students. It is suggested that verbal and quantitative scores on first and second tests be averaged and that, generally, the second score on the science test be used. A report of this study has been submitted for publication in *J. M. Educ.* (12).

3. In cooperation with the Continuing Group on Student Affairs, a study is being made of students with high MCAT scores who failed to gain admission to a medical school. Reasons for rejection are being obtained from the schools to which the students applied and an attempt is being made to learn from the students what their current activities and career plans are.

4. Also in cooperation with the Continuing Group on Student Affairs, a study is being made of students who receive acceptances but never enter a medical school. The present career plans of these students are also being investigated.

5. In cooperation with Drs. E. K. Strong of Stanford University and Anthony C. Tucker of Denver University, authors of the Strong Medical Specialist Blank, a follow-up study is under way of 750, 1950 graduates to whom this test and the SVIB were administered during their fourth year in medical school. Preliminary results indicate that (1) scores on the general "specialization" scale predict degree of specialization (teacher-researchers obtain the highest scores), and probability of taking and passing specialty board examinations; (2) physicians engaged in organized medical services (group practice, etc.) score higher on the physician interest scale of the SVIB than private practitioners; (3) the SVIB Psychologist Scale differentiates physician teacher-researchers from those in practice; (4) in general, physicians now engaged in a particular specialty have higher average scores on the specialty scale for their field than do other groups.

The studies described above will provide a great deal of useful information about the kinds of performances of the medical student that can be predicted at the time he enters medical school. But what relation does performance as a student bear to the performance of the physician? This will be the crucial question in the years that lie ahead for which plans must be made. The technical skills of the research staff require the help and guidance of knowledgeable medical educators. To this end, the committee recommends appointment of a special advisory committee to assist in planning future program development. The committee has also approved a staff request for appointment of a technical advisory committee including representation from the committee, medical faculties, measurement and social psychology to assist in consideration of technical and methodological problems in the current phases of the research program. These recommendations will be forwarded to the Executive Council.

TEACHING INSTITUTES

The Second Institute on Clinical Teaching, which was held in Chicago in October, 1959, was the seventh and final Institute in a series focused on the medical school curriculum. The institute program, which has stimulated critical self-examination, research, experimentation, and curricular planning and development across the whole spectrum of medical education, was established as an AAMC research division project by Dr. George P. Berry, Dean of the Harvard Medical School, during his tenure as President of the Association in 1952. Three very successful conferences held in 1951 and 1952 by educators in physchiatry and preventive medicine, which the Association co-sponsored and helped to plan, inspired Dr. Berry to propose the formal institute program outlined in his presidential address.[2] In his prefaces to the published proceedings of each of the succeeding institutes, Dr. Berry has reflected their developing philosophy and

[2] George P. Berry, Medical Education in Transition. J. M. Educ., 28:17-42, 1953.

achievements. These essays will be tomorrow's history of medical education in mid-twentieth century. Dr. Berry's descriptions of the problems of the student, the teacher-researcher, the teacher-practitioner and the medical school in its relations with the university, the hospital, and other agencies and forces affecting its practices and development and his discussions of how our faculties have approached and dealt with these problems through the medium of the Teaching Institutes, have more than historical significance, however. They provide an ideistic foundation for planning for the future, and in so doing, manifest Dr. Berry's own role as a major intellectual leader in present-day medical education.

The committee's recommendation—indicated in our 1959 report—that the Institute format be preserved in the development of a new series of programs, was approved by the Association's Executive Council. It was decided that the next group of meetings should focus on problems arising from rapid social and scientific change which are affecting both the structure and functions of medical education. Within this frame of reference, plans were made for the 1960 Institute to be held on November 1-3, immediately following the annual meeting of the Association (instead of preceding it as in the past). Dr. Carlyle Jacobsen as chairman and Doctors Cecil G. Sheps and George A. Wolf, Jr. as subcommittee chairmen have carried the burden of planning this year's Institute which will concentrate on the implications that changing patterns of medical practice have for medical education. Medical school deans will be the participants. They will be joined by representatives of a wide variety of agencies and social groups as well as by some faculty members, particularly in public health, and together they will examine the appropriateness of present-day education for tomorrow's medical practice.

Dr. Julius H. Comroe, Jr., chairman of the Association's first Teaching Institute on Physiology, Biochemistry, and Pharmacology, has been recalled by the committee to lead the planning for the 1961 Institute which has been tentatively entitled The Medical School and Medical Research. Also, Dr. Stewart G. Wolf, Jr., has accepted appointment to the chairmanship of the 1962 Institute which will focus on the relations between the medical school and the medical profession.

The new series of institutes, focusing as they do upon current pressing issues, has led the committee to consider ways in which recommendations for future planning might grow out of the institute program without destroying the opportunity they now provide for a free exchange of thoughts and ideas. The committee invites suggestions, and will submit its recommendations to the Executive Council during the coming year.

Publication of the book reporting the Second Institute on Clinical Teaching (1959), edited by Helen Hofer Gee and Charles G. Child, III, with editorial coordination by E. Shepley Nourse, has been delayed due to more time-consuming editorial scrutiny than has been the case with past institute reports. When the report does appear, probably in January, 1961, it will be available in clothbound book form and as a paperbound supplement to *The Journal of Medical Education*.

THE CONTINUING GROUP ON STUDENT AFFAIRS

This vigorous outgrowth of the 1956 and 1957 Teaching Institutes has again in 1959-60 demonstrated that it is an effective mechanism through which the Association and the member schools can express their interest in student problems.

During the year, the Continuing Group, which has one or two representatives from each medical school, has sponsored five regional meetings, and it will have its fourth annual meeting on October 29-30, 1960. Participation in its activities has been enthusiastic.

It is most pertinent in the report from the Division of Basic Research to emphasize that the existence of the Continuing Group has facilitated all studies connected with applicants and students. It is now possible for the Director and staff to make reports and describe future plans to those people in each medical school who are most directly concerned with student affairs. This has resulted in significant improvement in the collection of data both for routine operation and for special studies.

During the past year, the Continuing Group has cooperated in the clarification of the definition of applicants, and has developed "Recommended Application Procedures" which should be more easily understood by students and college advisers than were the "Traffic Rules" which they have replaced. It is especially noteworthy that, during the past four years when there has been a steadily decreasing number of medical school applicants and when one might expect rancorous competition for students, there has been a progressive improvement in the cooperation of medical schools in dealing with admission problems. To date this year, for the first time, no complaints have been received in the Association's central office about practices of medical schools in dealing with applicants.

The Continuing Group is actively involved in problems related to recruitment, selection, financial aid, the progress of students through medical school, and the factors which influence performance in professional careers. The accomplishments of the Continuing Group have demonstrated the role of the Association in bringing together representatives from individual schools under circumstances which permit them to discuss problems of mutual concern and to develop cooperative plans for action and for continuing joint study in areas of common interest and responsibility. Several interesting projects are under way, most of which could not possibly be significant if they were limited to the data available in only one school.

The Continuing Group is related to the Committee on Research and Education through the Subcommittee on Student Affairs, whose members are: Doctors John L. Caughey, Jr., chairman; Samuel P. Asper, Jr.; Lawrence W. Hanlon; John J. Mahoney; Woodrow W. Morris; James R. Schofield and Lyman M. Stowe.

THE 1959-60 STUDY OF APPLICANTS

"Datagrams" published in the October and November issues of *The Journal of Medical Education* summarize information of primary interest from the 1959-60 Study of Applicants.

In noting the decrease in applicants for the third consecutive year, the 1959-60 study[3] endeavors to bring into perspective factors which can critically affect applicant activity. The intellectual quality of accepted applicants is also of continuing interest. The 1959-60 accepted applicants are the first to surpass the 1951-52 standardization group in over-all MCAT performance although actually, the quality of the accepted applicant group has remained generally constant over the past few years. As part of an effort to offer a broader view of applicant

[3] To be submitted for publication in *J. M. Educ.*

data, note is made of exaggerated emphases in recent press and other public statements on the notion that the quality of medical students—as measured by grade averages—is declining. While it is true that the proportion of "A" students has declined from a high set in 1950 and 1951, it must be remembered that these were the years in which the applicant-acceptance ratios were also extremely high as a function of the influx of veterans to higher education. Since 1952 the distribution of grades among accepted applicants has remained relatively constant with no indication of decline. Whether the present level of quality can be maintained in the face of a shrinking applicant pool will be contingent upon two major considerations discussed in the study, the importance of financial problems in career choice and the competition between medicine and other fields for the available talent supply.

For discursive purposes the study draws on other than original sources for data and has an expanded appendix containing tables reinstituted from previous studies.

ADMISSION REQUIREMENTS BOOK

This annually revised handbook for premedical students and advisers has long since passed the point where its historical designation of "booklet" is appropriate. *Admission Requirements of American Medical Colleges Including Canada (1960-61)*, was published August 15—it is a 254-page *book*. The rate of sale of this edition is ahead of all past editions. It features a reorganization of content presentation, the addition of completely new material, and the usual updating of basic information. E. Shepley Norse, editorial coordinator for the division, has designed and executed this new revision.

There are now four chapters in the *Admission Book*. Chapter 1, "Educational Planning for Careers in Medicine," emphasizes the long-range view with suggestions for premedical coursework at one end of the continuum and commentary on preparation for the specialties at the other. The much-appreciated cooperation of the ninteen American Boards has produced a descriptive section on each specialty, material that is already proving helpful in answering the questions of prospective medical appplicants.

Chapter 2 outlines step-by-step procedure in the mechanics of applying to medical school. The new Recommended Acceptance Procedures of the Association of American Medical Colleges are published in full as Table 11 in this chapter.

Chapter 3 constitutes the bulk of the book with two-page entries for each United States Medical school. Two changes in this chapter should be noted: (1) the presentation of schools in alphabetical order by state rather than alphabetical order by school name, a change requested for consistency with the *AAMC Directory* and as an aid to applicants who approach the school-selection problem geographically, and (2) the page-design revision, which evolved from suggestions of the Continuing Group on Student Affairs for highlighting the often-misunderstood timetable of application and acceptance procedure.

Chapter 4 presents the affiliate medical schools, and we welcome the addition of the University of the Philippines to these pages. The two-page school entries are preceded by general information on medical education in Canada. By Canadian request, the "possible limiting factors" information has been tabulated as for the United States schools to give applicants a quick overview of residence, sex, age, and other policies.

The *Admission Book* is in a continuing state of editorial review, and future plans for revision will be keyed particularly to the recommendations of the Continuing Group on Student Affairs and the information needs of potential medical applicants as revealed by their inquiries. It is currently planned that the next edition will change the presentation of microscope information and feature a further expansion of the Reading List. A small study is under way on the reading recommendations of medical students, and results will be reported in the *Admission Book*. It is already evident that the *Admission Book* itself is Number 1 on the list of books medical students would recommend to young career planners for specific information on becoming a physician.

Almost 1,000 more copies of the 1959-60 *Admission Book* were distributed than was the case with the preceding edition. Specific promotion plans plus the generally increasing attention to medicine in the public press indicate a promising forecast for sales of the current 1960-61 edition.

MEDICAL COLLEGE ADMISSION TEST

After extensive study and evaluation of all aspects of the Medical College Admission Testing program the committee this year recommended, and the Executive Council approved, awarding a new contract covering test administration and test development to The Psychological Corporation located in New York City. The selection of The Psychological Corporation was based on the committee's conviction that this firm is better prepared than any other to give to our admission testing program the kind of professional talent and attention it must have to meet its obligation as the principal tool in the selection process. Dr. Wimburn L. Wallace, Director of the Professional Examinations Division of The Psychological Corporation, is personally directing development of the MCAT program.

The committee feels it is important that all prospective medical school applicants, premedical advisors, and medical admission committees understand that this change in testing agency does not mean there is to be any alteration in the conduct of the MCAT program. Changes in the MCAT will be made only after intensive study and analyses substantiate that change is valid and desirable. Prospective applicants and admission committees will be fully informed in advance of the nature of any alteration in the program and of its implications for selection and counseling.

At a meeting held at The Psychological Corporation offices in May of this year, the committee, members of The Psychological Corporation staff, and several outstanding consultant psychologists from the areas of measurement and test theory launched a new test development program for the MCAT. At this first meeting, the objectives of the program were reviewed and plans were made for including experimental materials in the October test administration. The staff of The Psychological Corporation is working closely with the basic research division in planning further steps in this study program. It is anticipated that the committee will review progress once or twice each year.

Publication of a handbook on the use and interpretation of the MCAT is planned for February, 1961. The publication will probably be in loose-leaf notebook form to facilitate revisions as the testing program develops.

REGULAR REPORTS AND SPECIAL SERVICES

The first distribution of a new report that is being made to all U.S. medical schools has just been completed. This report supplies each medical school with the means and distribution of MCAT scores for its total applicant and enrolled student groups. These data replace a previous report which supplied similar information on students who at the time they took the test asked that their scores be sent to particular schools. Comparision of applicant with enrolled student MCAT data enables each school to evaluate the ability distribution of its applicants and to appraise the abilities of the enrolled group in comparison.

An attempt was made last year to schedule specific dates for all regular school reports. Personnel problems in the A.A.M.C. IBM facility delayed some of the more complex reports, although the majority met their deadlines. There is no question but that applicant statistics should be made available sooner than they are, and that existing processing procedures need overhauling. Despite excellent cooperation from nearly all medical schools, these data continue to be delayed many months. It is doubtful that much progress can be made in this direction, however, without additional professional level staff. A partial solution to the problem is early production of summary statistics in the A.A.M.C. "Datagrams," which were initiated last year by the Operational Research Division. The September and October, 1960, issues reported the principal 1959-60 applicant statistics, and it is hoped that 1960-61 data may be made available through this medium several months earlier.

At the 1959 Continuing Group on Student Affairs meeting a majority of those present expressed approval of reinstatement of the applicant action category "withdrawn before action taken." This category has accordingly been added to applicant reporting forms, and will be used in reporting 1961-62 applicant activity.

Medical schools, undergraduate colleges, regional, governmental, and private agencies as well as individual investigators continue to call upon the basic research division's resources for information and data. The division is fortunate in having a stable, well trained technical staff that is now able to handle such requests with minimum guidance and direction, permitting the professional staff to devote more time and attention to consulting services. Demand for the latter has increased significantly during the past year as the division's activities have become more widely known. The program's growing stature is perhaps also reflected in an increasing number of invitations to read papers, address groups, and participate in working conferences. In addition to papers already referred to in the section on the division's basic research program, invited addresses were given at the A.M.A. 56th Annual Congress on Medical Education and Licensure (13), at the 1960 annual meeting of the Association for Education in Journalism (14), and at an Alpha Delta Epsilon Conference on Premedical and Predental Education (15). The director served as a resource person at working conferences held by The American National Heart Association, The National Institute of Mental Health, the American Rehabilitation Foundation, and Ross Laboratories. The assistant director served in a similar capacity at a conference sponsored by Dillard University through a grant by The National Medical Fellowships, Inc.

1960–61 CALENDAR OF REPORTS TO MEDICAL SCHOOLS AND UNDERGRADUATE COLLEGES

	Scheduled Mailing Date
A. Medical School Reports	
Class rosters:	
1. Check lists of all students in 2nd, 3rd, and 4th years (establishes enrollment for year).	
2. Check list of present first-year students (repeaters separate), accepted and withdrawn applicants, and not accepted applicants. (Establishes first-year class enrollment and provides confirmation of applicant study data.)	November 15, 1960
Lists of offers of acceptance:	
List No. 1	November 18, 1960
List No. 2	December 16, 1960
List No. 3	January 6, 1961
List No. 4	February 3, 1961
List No. 5	February 24, 1961
List No. 6	April 14, 1961
List No. 7	July 14, 1961
Final freshman roster:	
Alphabetical listing of all freshmen in all schools, prepared from preliminary roster sent November 15.	February 1, 1961
Supplement to freshman roster	March 1, 1961
Summer session bulletin:	
Requests for information on summer session offerings	February 15, 1961
Bulletin of offerings by all schools	April 10, 1961
Forms for reporting 1960-61 accomplishment of all students	May 31, 1961
Competitive school report: eventual disposition of all applicants to a given medical school (1959-60 applicants).	November 15, 1960
Drawing power report: ability levels of all applicants to all medical schools from a given undergraduate college vs. ability levels of those applying to each medical school.	December 15, 1960
MCAT reports:	
1. MCAT summary of 1960 applicants. Individual report to each school showing average scores and score distributions of all applicants to that school and of the school's 1960-61 first-year class.	May 1, 1961
2. 1960-61 summary by undergraduate college attended of MCAT score means and distributions of all students listed over a four-year period.	January 5, 1961
Irregularity reports	As needed
Biennial reports not scheduled for 1960-61	
Undergraduate origins reports:	
Report 10 lists number of students from each undergraduate school entering medical school in 1955 whose progress was regular, irregular, or who withdrew from school.	
Report 11 lists the same information for each medical school with respect to the two undergraduate schools that supply the largest number of students to that school and for all other undergraduate schools providing students for that medical school.	
B. Reports to Undergraduate Colleges	
1. Individual undergraduate college MCAT score means and distributions over four-year period.	February 1, 1961
2. Undergraduate Accomplishment Reports Forms 1 and 8. Form 1 shows 4-year accomplishment of all students from a given undergraduate school who entered medical school in 1956. Form 8 shows application activity and first-year accomplishment of that school's students who applied for admission to the 1959-60 first-year class.	March 1, 1961

1960–61 CALENDAR OF INFORMATION REQUIRED FROM MEDICAL SCHOOLS

Information Required	Date Needed
Matriculation forms	October 15, 1960
Class rosters and applicant list	December 15, 1960
Check reports sent by A.A.M.C. on November 15 and make necessary corrections	
Summer session offerings	When information available
List of graduates from July 1, 1960 through June 30, 1961	July 15, 1961
Accomplishment reports	September 1, 1961
Change of status forms	
Report on withdrawals, change from full- to part-time status (or vice versa), name change	As soon as change occurs
Information regarding action taken on applications for 1961-62 class	
Offer of acceptance, withdrawal of application by student, or rejection of application by school	As soon as action is taken

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[4] Numbers 1, 2, 3, 7, 13, 14, and 15 are available on request from the Office of the Director of Research, A.A.M.C., 2530 Ridge Avenue, Evanston, Illinois.

REPORT OF THE DIRECTOR OF THE DIVISION OF OPERATIONAL STUDIES

LEE POWERS

INTRODUCTION

This is the second Annual Report to the membership of the Association of American Medical Colleges covering the activities of the Division of Operational

Studies. Last year's Report covered the initial 8 months of operations and described the various studies then in progress.

To acquaint the membership at that time with the intended function of the newly constituted Division, each study was coupled with the corresponding stated objective of the over-all program as detailed in the original proposal to the Kellogg Foundation for the establishment of the Division of Operational Studies. At the time of the last Annual Meeting, because the program was still in its initial stages, no critical evaluation in terms of its long-range objectives was possible.

This year the situation is different. Steady progress has been maintained during the year in the compilation, analysis, and distribution of data directed primarily to the attention of medical educators. The articulate response to the studies and reports on the part of the profession, accelerated demand for services and the broadening audience of individuals or organizations interested in this type of information constitute supporting evidence that the Division is performing a useful and valued function.

COMMITTEE MEETINGS

A meeting of the Steering Committee of the Division of Operational Studies was held on Tuesday, June 28, 1960. All Committee members were present, with the exception of Dr. Robert A. Moore who was in Europe. Dr. Walter Wiggins represented the American Medical Association at the meeting.

The main purpose of the meeting was to consider policies for handling the faculty registry data and other accumulated information pertaining to medical school faculty patterns and student body composition. Possible future studies were discussed.

The first meeting of the *Ad Hoc* Committee on Financial Assistance to Medical Students was held on January 5, 1960. Its purpose was to discuss the numerous aspects of financial aid to medical students as a basis for formulating an effective policy statement of the A.A.M.C. which could serve as partial presentation of requests for funds to private organizations as well as for appearances before Congressional hearings pertaining to federal financial assistance to medical education. The eventual policy statement, entitled *"Statement Regarding The Need For Medical Student Financial Aid,"* was submitted by Dr. Darley on behalf of the Federal Health Program Committee of the A.A.M.C. to the Subcommittee on Health and Safety of the U.S. House of Representatives' Committee on Interstate and Foreign Commerce on June 6, 1960. Copies of the statement are available at Association headquarters and will be published in the Proceedings of the Minutes of The Annual Meeting.

Following is a report of the current activities of the Division:

A. "Datagrams" and Information Center.—The monthly publication of "Datagrams" has obviously met a real and present need. The response has been enthusiastic. Requests to be placed on the mailing list are received almost daily from individuals and representatives of various organizations, including those of federal, state and local governments, public relations firms and other national service organizations interested in higher education. Approximately 7500 copies are distributed monthly. Each issue of "Datagrams" is documented in *The Journal*

of Medical Education, but because of production schedules for the journal, it does not appear until 3 months after the loose-leaf edition.

To increase the usefulness of "Datagrams," a subject and alphabetical index is now in preparation. Three issues of the current volume were submitted by the Division of Basic Research of the A.A.M.C. This practice will be repeated from time to time, thus giving the forum an organization-wide base.

The *reprint library* of articles, publications, reports and newspaper clippings of interest to medical educators is being augmented daily. This information center constitutes an invaluable ready reference resource not only for the Division but for the Association as a whole. It is frequently used in compiling bibliographies for individuals and organizations not immediately connected with the Association. Requests of this nature from outside sources have increased considerably since last year.

B. Studies concerned with students.—The study, entitled "The Medical Student: His Financial Status and Problems," is rapidly nearing completion. It will cover the areas of student costs, sources of funds, employment, loans, scholarships and fellowships, professional plans, and perceptions of a medical career as related to financial status and student indebtedness. Each of these areas will be taken up in relation to four basic factors involved in the student's financial status and problems; namely, (*a*) marital status, (*b*) parental income and family help, (*c*) student earnings, and (*d*) regional distribution and type of support of the medical school.

The student financial study was sponsored jointly by the Division and by the Association's Continuing Group on Student Affairs of which Dr. John Caughey, Jr. is Chairman. The data for this Study were derived from a questionnaire completed by 72 per cent of the graduating class of 1959.

Another report, entitled "The Cost To the Student of Medical Education," was prepared and was delivered by Dr. J. Frank Whiting to the Legislative Work Conference of the Southern Regional Education Board in August, 1960. This report presented a comparative analysis of medical student finances in terms of both the Southern Regional medical schools and the over-all national picture.

Similar information has been compiled for various agencies and individuals interested in the problem of medical student finances. For example, a complete analysis of scholarship requests and receipts was prepared on the schools in New York State and the Northeastern Region of the U. S. An analysis of the data on medical student employment was prepared for the National Fund for Medical Education.

A report, entitled "Alternate Methods for Providing Financial Assistance to Medical Students," was prepared in response to a request from a foundation for background information on currently available financial assistance to medical students. This report is being readied for publication in brochure form so that it can be made available to all agencies and organizations interested in helping to provide financial assistance to medical students.

Finally, the A.A.M.C. received a request to provide information to the Department of Health, Education and Welfare's Survey of Federal Programs in Higher Education. Work on this report is nearing completion.

Arrangements have been made with the National Opinion Research Center (NORC) to collaborate on an analysis of the financial status of U. S. medical

students and U. S. arts and science graduate students in 20 universities in the U. S., which have both medical schools and graduate schools of arts and sciences. The data on the graduate students have already been collected and processed as a part of the National Opinion Research Center's study—"The Financial Situation of American Arts and Science Graduate Students." The results of this collaborative effort between A.A.M.C. and NORC will be published in forthcoming "Datagrams," articles in *The Journal of Medical Education*, and other chapters of the above-noted monograph.

The members of the Division staff cooperated in the joint A.M.A.-A.A.M.C. recruitment film and brochure "I Am A Doctor." The film is for use in high schools and colleges and the brochure was prepared mainly for use of student advisors.

The Internship Study, directed by Dr. Richard Saunders, Jr., and financed through a separate grant from the W. K. Kellogg Foundation, is progressing satisfactorily. Information obtained from a questionnaire distributed in the spring to interns in 29 selected hospitals has been tabulated. The final report on the Study will be submitted for publication about November 15 of this year.

C. Studies concerned with facilities.—Through the joint efforts of the A.A.M.C. and the American Medical Association, a *medical school faculty registry* is a near reality. More than 36,000 questionnaires have been filled out by medical school teaching personnel and returned to the Division of Operational Studies for processing on IBM cards. This represents a reply from approximately 93 per cent of all faculty members holding positions with the rank of Instructor or higher in U. S. medical schools today. Continuing efforts are being made to obtain a 100 per cent return.

This survey provides information on rank, specialty, full-time or part-time affiliation, earned degrees, and number of hours per year spent by the part-time faculty on medical school teaching, research, administration, and patient service, as well as current military status of each individual faculty member. Information obtained from the registry concerning medical school full-time staffing patterns was reported in "Datagrams" Vol 2, No. 6, December, 1960. A more comprehensive study of this subject is currently in progress.

An analysis of medical college faculty salaries has been completed. Tabulations and graphic reports on the information, obtained from 65 schools which participated in the national questionnaire survey, have been distributed for the confidential use of the deans of the U. S. medical schools. These included salary ranges, means and medians for those holding positions of Instructor or higher in Clinical and Pre-Clinical Departments, and differentiated between strict and geographic full-time appointments. Comments from numerous deans indicated that this information was especially timely and useful. A biennial revision of salary information is planned.

D. Studies concerned with facilities.—Two major reports involving school facilities have been published since the last Annual Meeting. The first, entitled "National Goals for the Construction of Medical School Facilities," appeared in *The Journal of Medical Education*, Vol. 35, No. 2, February, 1960. The second, entitled "New Medical Schools: Some Preliminary Considerations," was prepared by Dr. William R. Willard, Vice President and Dean of the University of Kentucky Medical Center, and appeared in the same issue of the Journal.

For groups interested in starting new medical schools, further activity in this area is being conducted by an *Ad Hoc* Committee on Medical Educational Facility Planning. The Committee is preparing a resource paper dealing with a variety of specific facilities such as libraries, multi-discipline laboratories, dormitories, student facilities, and other related topics.

A "Statement Regarding The Need for Health Education Facilities," prepared by the Division staff, was submitted by Dr. Darley on behalf of the Federal Health Programs Committee of the A.A.M.C. to the Subcommittee on Health and Safety of the House of Representatives' Committee on Interstate and Foreign Commerce in Washington on June 6, 1960. Copies of the statement are available at Association headquarters and will be published in the Proceedings of the Minutes of the Annual Meeting.

E. Studies concerned with financial and administrative problems of medical schools.—The complex and varied administrative interrelations between medical schools and their parent universities add considerably to the problem of obtaining data pertaining to program costs and basic expenditures by source of income. To overcome these difficulties, the Division of Operational Studies, under the supervision of Augustus J. Carroll, developed and tested methods and procedures to determine medical school program costs. A manual of these methods and proceedings has been published and distributed to each medical school in the U. S. A series of regional meetings for deans and fiscal officers of medical schools were held during the winter and spring to explain the procedures, discuss problems involved in the application of the system to individual schools, and to stimulate wide participation in the cost study throughout the country. Major emphasis of the Division is being placed on the Cost Study. Members of the staff of the Division will be on call throughout the year to visit and assist medical schools which request help in development of their program cost analyses.

At the present time many schools are using the system to determine exactly what it costs to educate, respectively, a medical student, a graduate student, an intern, a resident, and other students such as nursing, dental, pharmacy, technical, and a miscellaneous group of para-medical students. They are also studying costs of doing research and of providing services to patients, hospitals and the community.

Dr. Darley, with the assistance of the staff of the Division, is re-studying the comparative data concerning income and expenditures for the years 1940-41, 1947-48 of the medical schools included in the Reed Report, and is extending the study to include comparable information for the more recent academic year 1958-59.

This year the Division of Operational Studies has assumed responsibility for tabulating financial information obtained from the Joint A.M.A.-A.A.M.C. Questionnaire and for preparing the Table on Expenditures which will appear in the Education Number of the *J.A.M.A.*

Dr. Cecil G. Sheps, of the Graduate School of Public Health at the University of Pittsburgh, is presently bringing up-to-date the file of existing agreements between medical schools and hospitals. A brief summary dealing with these agreements and a new microfilm of the agreement will be prepared to assist medical schools involved in related problems.

A report, entitled "Financial Consideration of Medical Schools," was prepared

and presented by Dr. Powers to the Legislative Work Conference of The Southern Regional Education Board in August, 1960. This report discussed the broad patterns of the financial aspects of medical education on a national level. It provided a general frame of reference for discussion and interpretation of specific data as applied to the schools located in the area served by the Board.

F. Items under consideration for future programs and studies.—

1) Ratio of teaching beds to clinical students;
2) Methods of projecting faculty needs;
3) Faculty movement, turn-over rates and vacancies;
4) Methods of determining academic deficits;
5) Basic plans for new school construction (now in preliminary phase);
6) Regional workshop conferences for university and college administrative officers who would like to explore the possibility of establishing a new medical school;
7) Medical school-medical center relationships;
8) Exploration of the residency as a medical educational function. Comparative educational content and methods.

REPORT OF THE SECRETARY

RICHARD H. YOUNG

The Association, in conjunction with the Council on Medical Education and Hospitals of the American Medical Association, carried out the following medical school surveys during the academic year 1959-1960:

University of Alberta Faculty of Medicine
University of Western Ontario Faculty of Medicine
Saint Louis University School of Medicine
Marquette University School of Medicine
University of Rochester School of Medicine and Dentistry
Seton Hall College of Medicine and Dentistry
Baylor University College of Medicine
University of Puerto Rico School of Medicine
University of Florida College of Medicine
University of Cincinnati College of Medicine
University of Mississippi School of Medicine
State University of Iowa College of Medicine
Dartmouth Medical School
Georgetown University School of Medicine

The reports of these surveys have been reviewed by the members of the Executive Council of the A.A.M.C. and the Council on Medical Education and Hospitals of the A.M.A. and approved by the Liaison Committee between the two Associations.

The visitation schedule for 1960-1961 is as follows:

Université Laval Faculté de Medicine
New York University School of Medicine

University of Pittsburgh School of Medicine
Woman's Medical College of Pennsylvania
Université de Montreal Faculté de Medicine
Medical College of Alabama
Stanford University School of Medicine
Northwestern University Medical School
Medical College of South Carolina
Western Reserve University School of Medicine
University of Pennsylvania School of Medicine
Meharry Medical College School of Medicine
University of Ottawa Faculty of Medicine
Temple University School of Medicine
University of Minnesota Medical School
University of Oregon Medical School
University of Wisconsin Medical School

The following men are acting as Assistant Secretaries of the A.A.M.C.:

John A. D. Cooper (Northwestern University)
James R. Schofield (Baylor University)
Samuel A. Trufant (University of Cincinnati)
Robert R. Wagner (John Hopkins University)
Robert G. Page (University of Chicago)
Edward S. Petersen (Northwestern University)
Winston K. Shorey (Miami)

REPORT OF THE TREASURER

J. MURRAY KINSMAN

The financial statements of the Association and the report of our auditors, Ernst & Ernst, are presented herewith:

BALANCE SHEET

	June 30 1960	June 30 1959
Assets		
Cash	$151,448.84	$130,284.78
United States Government short-term securities at cost and accrued interest (approximately market)	181,167.19	130,690.63
Accounts receivable	81,941.14	61,808.16
Loan receivable—Educational Council for Foreign Medical Graduates	-0-	8,333.33
Accounts with employees	1,555.15	3,524.70
Supplies, deposits and prepaid expenses	8,320.70	1,139.23
Land and building—at cost—Note A:		
Land improvements	$ 9,002.36	$ 9,002.36
Building	287,853.89	287,853.89
	$296,856.25	$296,856.25
	$721,289.27	$632,637.08

Liabilities and Equity

	June 30 1960	June 30 1959
Liabilities:		
Accounts payable	$ 83,038.15	$ 19,844.75
Taxes withheld from payrolls	4,897.88	4,607.74
Payroll taxes	579.62	402.12
	$ 88,515.65	$ 24,854.61
Equity:		
Restricted for special purposes	$180,753.12	$214,697.47
Invested in land and building	296,856.25	296,856.25
Available for general purposes	155,164.25	96,228.75
	$632,773.62	$607,782.47
	$721,289.27	$632,637.08

See notes to financial statements

STATEMENTS OF INCOME AND EXPENSE AND EQUITY

Statement of Income and Expense

	Year Ended June 30				
	1960				
	Restricted for Special Purposes	Invested in Land and Building	Available for General Purposes	Total	1959 Total
Income:					
Dues			$148,713.00	$148,713.00	$115,368.15
Grants	$239,940.74		137,100.00	377,040.74	326,698.55
Services			174,060.68	174,060.68	126,173.03
Publications			76,555.97	76,555.97	60,541.21
Interest			8,898.74	8,898.74	3,921.06
Transfers in-out*	3,922.73*		3,922.73	-0-	-0-
TOTAL INCOME	$236,018.01		$549,251.12	$785,269.13	$632,702.00
Expenses:					
Salaries	$ 92,033.86		$249,837.53	$341,871.39	$306,459.28
Other expenses	137,695.82		269,710.77	407,406.59	322,009.18
Transfers in-out*	29,232.68		29,232.68*	-0-	-0-
Total expenses	$258,962.36		$490,315.62	$749,277.98	$628,468.46
Income in excess of expenses	($ 22,944.35)		$ 58,935.50	$ 35,991.15	$ 4,233.54

	Restricted for Special Purposes	Invested in Land and Building	Available for General Purposes	Total	1959 Total
		Statement of Equity			
Balance at July 1, 1959	$214,697.47	$296,856.25	$ 96,228.75	$607,782.47	
Less grants of prior year returned to grantors	11,000.00			11,000.00	
	$203,697.47	$296,856.25	$ 96,228.75	$596,782.47	
Income in excess of expenses	(22,944.35)		58,935.50	35,991.15	
Balance at June 30, 1960	$180,753.12	$296,856.25	$155,164.25	$632,773.62	

Parentheses indicate expenses in excess of income.

* Indicates deduction.

See notes to financial statements.

Notes to Financial Statements

June 30, 1960

Note A: Land Improvements and Building.—The national headquarters of the Association are located on land donated by Northwestern University. Under terms of the grant, the land must be used as the site of the national headquarters and may not be sold or mortgaged without the consent of the University.

Note B: Grants Receivable.—It is the practice of the Association to include grants in income when they are received. At June 30, 1960, the Association had been notified by several grantors that it may expect to receive $465,000.00 for special purposes and $25,000.00 for general purposes within the next 3 years.

The following letter is the Accountant's Report

Executive Council
Association of American Medical Colleges
Evanston, Illinois

We have examined the financial statements of Association of American Medical Colleges for the year ended June 30, 1960. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We previously made a similar examination of the financial statements for the preceding year.

In our opinion, the accompanying balance sheet and statements of income and expense and equity present fairly the financial position of Association of American Medical

Colleges at June 30, 1960, and the results of its operations for the year then ended, in comformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Ernst & Ernst
Certified Public Accountants

Chicago, Illinois
August 8, 1960

JOINT REPORT
EDITOR AND EDITORIAL BOARD

JOHN Z. BOWERS

The primary role of *The Journal of Medical Education* is to serve as the official publication of the Association of American Medical Colleges. This includes the documentation of significant developments in medical education in the United States and Canada, reports from the Headquarters of the association and news from the medical schools. Developments in medical education in other countries relevant to progress in the United States and Canada are also reported in the Journal.

During the past three years there have been major changes in the program of the Journal. In October, 1957, the offices of Editor and the Chairman of the Editorial Board were combined. The Publications Office in the headquarters was terminated. General format of the Journal, including bibliography, was standardized. Consecutive pagination of major Journal sections was introduced. A professional indexer was employed to develop comprehensive indexing of all aspects of medical education. The publication of special articles in regular numbers rather than in supplements was initiated, as well as other measures to enlarge the Journal.

With the approval of the Editorial Board, additional new programs were introduced for the Journal. In view of the large number of high quality addresses and communications that would not qualify as original manuscripts, the Medical Education Forum was established. The quality and quantity of material appearing in the Forum have increased steadily.

Another new section, "Abstracts from the World of Medical Education," reporting articles on medical education appearing in other publications, both foreign and domestic, was developed.

It was decided that book reviews should be limited to new books that would be valuable as teaching media. Other books would be reported in a brief statement.

These new programs have been activated and are developing in a satisfactory manner.

Special numbers of the Journal that have been published during this period include:

1. Genetics in Medical Research
2. Experiment in Medical Education
3. Laboratory Animals: Their Care and Their Facilities
4. A Special International Number

The Reports of the Teaching Institutes are published annually as Part II of the October numbers of the Journal.

A series of articles on the History of Medical Education developed by Professors Erwin Ackerknecht and Fredrick Norwood has been published.

A comprehensive five-year index covering the years 1953–57 was published in September, 1960.

The special international number was published in relation to the Second World Congress on Medical Education which was held in Chicago, August, 1959. Articles from many countries, international health agencies, and foundations; the A.A.M.C. and the A.M.A. were included. A free copy was sent to each medical school in the world. We propose to publish a similar number biennially.

In 1960, the monthly circulation was 5,919 copies. This figure includes 473 foreign, 145 Pan American and 197 to the Canadian Medical Schools. These figures are essentially the same as those for the preceding year. Under A.A.M.C. policy, each member school receives 25 copies of the Journal for distribution. Through this allocation, the Journal is being used increasingly to acquaint university officials, trustees, and other groups relating to medical schools with national programs and problems.

During the period 1959–60, 222 manuscripts were received—an increase of over 50 per cent in comparison with the previous year. This increased flow of high-quality manuscripts resulted in the publication of 1,220 pages of material for indexing as compared with 860 pages in the previous year. Sixty-four per cent of the manuscripts received in this period were published; 21 per cent rejected, and the remainder are in revision.

Solicitation of manuscripts on selected problems and programs will continue. The steady improvement in the quality and quantity of manuscripts submitted without solicitation has been most satisfying.

An exhibit featuring the program of the Journal was a feature of the Second World Congress on Medical Education and has been expanded for the 1960 Annual Meeting.

The Josiah Macy, Jr. Foundation makes an annual grant of $10,000.00 to enhance the role of *The Journal of Medical Education* overseas. The Special International numbers of the Journal are supported by this grant.

The Rockefeller Foundation supports the distribution of the Journal to the members of the Association for the Study of Medical Education and to the Medical Schools of Brazil.

The China Medical Board finances the distribution of the Journal to Medical Schools in the Asian area of its activity.

The Editorial Board has played a vital role in the development of the Journal. All manuscripts are reviewed by members of the Board. Dr. Kenneth Penrod is responsible for the section of "New Books."

A questionnaire has been distributed to the readers of the Journal to gather suggestions on the present program and desirable developments. The results of this review will be published in the Journal.

Scholarly editorials have been contributed by a number of leading medical educators.

The staff, Mrs. E. B. Pohle, Miss Neva Resek, Miss Helen Herman, and Mrs. Sanchez Barbuda play invaluable roles in our program.

Stanley E. Bradley
Julius H. Comroe, Jr.
John A. D. Cooper
T. Hale Ham
George T. Harrell
William E. Hubbard, Jr.
Vernon W. Lippard
W. Frederick Norwood
Kenneth E. Penrod

JOHN Z. BOWERS,
Editor-in-Chief, and
Chairman of the Editorial Board

REPORT OF COMMITTEE ON CONTINUATION EDUCATION

ROBERT B. HOWARD

The meeting of the Committee on Continuation Education was held at the time of the annual Congress on Medical Education and Licensure in Chicago. At this time there was a general discussion of the responsibilities of the committee and the question was raised as to whether its role could be a really meaningful one. It was the consensus of the committee that the A.A.M.C. should maintain leadership in this field inasmuch as postgraduate medical education is necessary for the maintenance and improvement of sound medical care. It was felt further that the A.A.M.C. will participate in the post-graduate field only to the extent that the committee stimulates it to do so.

One committee member, Dr. Woolsey, spoke of the need for financing a careful study of the entire post-graduate or continuation medical education area. He pointed out that his Committee on Audio Visual Aids had been able to secure support in the form of a grant in order to pursue a study of the use of closed circuit television in postgraduate education. He felt that similar financing might be available to the Committee on Continuation Education.

Several committee members spoke of the current problem of lack of coordination of post-graduate education efforts by various agencies interested in the field. It was suggested that if all such agencies would coordinate their efforts, perhaps on a regional basis, there would be considerable savings in time, effort, and expense, as well as an improvement in programming. It was suggested further that financing might well be available for studying the possibility of developing a coordinated activity of this type. It was stressed that there would be need for liaison with the Council on Medical Education of the American Medical Association in this regard. It was agreed that the possibility of effecting meaningful coordination of postgraduate activities would be pursued further at the next meeting.

Mahlon H. Delp
Clarence E. de la Chapelle
Rudolph H. Kampmeier
Albert C. Mackay
Philip R. Manning
Frank Woolsey
ROBERT B. HOWARD, *Chairman*

REPORT OF COMMITTEE ON FINANCING MEDICAL EDUCATION

GEORGE ARMSTRONG

The last meeting of the Committee on Financing Medical Education was held on November 1, 1959, at the Edgewater Beach Hotel, Chicago, incident to the Annual Meeting of the A.A.M.C. From this meeting there emanated two resolutions:

1. A resolution recommending a special meeting of the Institutional Members of the A.A.M.C. to be held prior to the opening of the next session of Congress.

2. A resolution recommending that a committee be appointed to be liaison between the Institutional Members of the A.A.M.C. and the National Institutes of Health.

These two resolutions were unanimously accepted by the Institutional Membership of the A.A.M.C. at its meeting on November 4, 1959. As amended, and brought together into one resolution, the official version accepted follows:

A RESOLUTION REGARDING A COMMITTEE ON FEDERAL HEALTH PROGRAMS

WHEREAS there are many proposals that will shortly be presented to Congress that will have a major impact on the conduct of medical education and medical schools in the future, and

WHEREAS it is important that these proposals be carefully studied by the medical schools and that the considered and collective opinion of the medical schools, through action of the A.A.M.C., be available to the Congress and to the public, therefore

BE IT RESOLVED that the Executive Council be instructed to study these proposals and make recommendations to the member schools for their consideration and action at a special meeting of the Institutional Members of the A.A.M.C. to be called, if possible, before the opening of the next session of Congress, and

BE IT FURTHER RESOLVED that the Executive Council effect an arrangement whereby the Association can keep in continuing communication and consultation with those agencies of the Federal Government that have interests or programs that concern the welfare of medical education or any of its related activities.

As a result of the first part of the adopted resolution, a special meeting of the Institutional Membership of the A.A.M.C. was held at the Shoreland Hotel, Chicago, on January 9–10, 1960. As a result of the second portion of the adopted resolution, there was established a Committee on Federal Health Programs and the chairmanship of this committee was offered to and accepted by Dr. Lowell T. Coggeshall.

It was the consensus of members of the Committee on Financing Medical Education that with the formation of the new Committee on Federal Health Programs, the Committee on Financing Medical Education might be discontinued. On the other hand, the Administrative Committee of the A.A.M.C., at a meeting held late in December, 1959, decided that the Committee on Financing Medical Education should be continued because of sources of assistance in the financing

of medical education other than the Federal Government. Therefore, the Committee will continue its activities in all fields other than those covered by the Committee on Federal Health Programs.

Donald G. Anderson
Robert C. Berson
Joseph C. Hinsey
Homer Marsh
Robert A. Moore
Isidor Ravdin
GEORGE ARMSTRONG, *Chairman*

REPORT OF COMMITTEE ON LICENSURE PROBLEMS

JAMES E. MCCORMACK

No strikingly new or critical problems in this area appeared during the past year. Indeed, it is the feeling that steady but slow progress is being made in several areas involving the problems which are inherent in the matter of licensure. These will be discussed from several points of view as follows:

CURRICULUM CHANGES AND SPECIFIC REQUIREMENTS

In previous reports attention was drawn to the fact that experiments in medical education, which involve significant changes in time allotted to various subjects, might conceivably create difficulties for innocent graduates because of specific legal requirements for medical education in various states. Preliminary inquiry did not suggest great difficulty. However, because of the importance of the matter further exploration was urged. This will probably be discussed in the Federation Bulletin and perhaps at the next Congress on Medical Education and Licensure. Incomplete returns to a set of five questions contain some warnings for those who would go so far as to eliminate certain disciplines entirely. At least a dozen states specify the traditional subjects but usually not the number of hours of each. Authorities in at least five states are inclined to interpret their medical practice act as prohibiting the integration of arts and sciences with medical studies.

In several states having state universities either the premedical requirements or the medical school curriculum requirements are dependent upon the requirements and practices of the local state university. Deans and faculties of such state schools might well review their requirements, having in mind sister institutions which may be experimenting with the curriculum.

The picture is not pessimistic and the cooperative attitude of individual representatives of the various state boards is encouraging.

FOREIGN PYHSICIANS

Last year's report summarized data for the past decade on total numbers of foreign physicians in training in America. It was reported that for the year 1958–59 there were 8,166 alien physicians in internships and residencies in the United States according to the Institute of International Education. The number continues to increase and for the year 1959–60 the total reached 9,457. In the

attached sheets are listed the ten states which had the largest representation, and also the ten countries which furnished the largest number. For comparison there are listed similar data for the preceding six years as extracted from I. I. E. files. There is not much change in the pattern of the highest ranking states. In the countries of origin it is of interest to observe the increasing rank of Turkey, Iran and India and the decreasing numbers from Germany.

In spite of the fact that the number of people coming from abroad to train in American hospitals is increasing and in spite of the fact that there are increasing numbers from parts of the world about which traditionally we have had relatively little information concerning the content of the medical school curriculum, nevertheless it seems fair to state that the influence of the ECFMG has introduced some order into this situation. Through March of 1960 the ECFMG in five semi-annual schedules had recorded just over 12,000 individual examinations. Interpretation of the results is fraught with difficulty but in the over-all 39 per cent were granted standard certificates and an additional 23.5 per cent were granted temporary certificates. This means that 37.5 per cent failed to obtain a grade of 70. The results of the September examination are not available as of the time of this writing but it is estimated that as many as 10,000 more will have been examined in September.

In spite of the earlier anxiety and even opposition from certain quarters, it appears that the significance and the value of the ECFMG is appreciated over an increasingly wide area. Comparison with the failure rate in ECFMG is inappropriate, but the latest data on foreign physicians who took various state board examinations indicate that 32.4 per cent failed in 1959 whereas for preceding five years the percentage of failure of foreign trained physicians in various state boards was 40.9, 41.5, 43.2, 41.4 and 42.6 per cent.

RECIPROCITY AND ENDORSEMENT

There is little doubt that the problems of evaluating foreign credentials during the past decade were, in part at least, responsible for development of increasing handicaps in the matter of endorsement and reciprocity at the interstate level. This is a matter of concern to American graduates as well, and several factors suggest that this concern will increase in future.

Several national studies have described a need for more physicians and new medical schools are being developed. These schools and the hospital centers where the majority of their graduates obtain residency training tend to be concentrated in metropolitan areas. It is increasingly recognized that residents ought to be licensed in the state where they are in residency. When they move on to another state to practice it would be convenient if they could have their original license endorsed. Reciprocity barriers, however necessary for other reasons, compromise this situation. Graduating more doctors will not solve the doctors shortage unless there is better distribution.

We are an increasingly mobile population and there is a steady increase in the number of physicians who are willing to be on salaried status rather than in solo practice, and who are thus more easily persuaded to move to another state. Difficulties in reciprocity often stand in the way, especially in view of the fact that the inexorable increase in specialization among American medical graduates makes it increasingly difficult to take a comprehensive general examination ten or

more years after graduation. One frequently comes upon examples such as a superbly trained ophthalmologist who wishes to obtain a license in a state where he is needed but which is remote from the state of his primary license; unless he can get around the occasional reciprocity barrier, he stays where he is.

In view of the above considerations, it is not surprising to see that the number of American and Canadian medical candidates who take the National Board Examinations increases each year. Only graduates of approved U. S. and Canadian medical schools are permitted certification by the National Board Examination. Allowing for minor reservations in a few localities, the certificate of the National Board of Medical Examiners is accepted as adequate qualification by licensing authorities of 43 states, the District of Columbia and outlying possessions. The seven states which do not at present accept it are: Arkansas, Florida, Georgia, Louisiana, Indiana, Michigan, and North Carolina.

DISTRIBUTION OF MAJORITY OF ALIEN INTERNS AND RESIDENTS IN U. S.

1959–60		1958–59		1957–58	
New York	2387	New York	2217	New York	1996
Ohio	872	Ohio	742	Ohio	782
Penn.	619	Penn.	569	Illinois	510
Mass.	573	Illinois	503	New Jersey	492
Illinois	552	New Jersey	448	Mass.	464
New Jersey	502	Mass.	437	Penn.	453
Maryland	437	Maryland	407	Missouri	315
Michigan	418	Missouri	343	Maryland	306
Missouri	408	Michigan	336	Michigan	268
Texas	228	D. of C.	194	Texas	203

1956–57		1955–56		1954–55		1953–54	
New York	1673	New York	1535	New York	1186	New York	635
Ohio	532	Ohio	485	Ohio	424	Ohio	308
Illinois	519	Penn.	415	Mass.	405	New Jersey	225
Mass.	438	New Jersey	398	Illinois	396	Mass.	222
Penn.	437	Mass.	371	New Jersey	348	Illinois	206
New Jersey	399	Illinois	359	Penn.	262	Penn.	145
Missouri	303	Missouri	253	Missouri	216	Maryland	125
Maryland	281	Maryland	229	Michigan	184	Minnesota	116
Michigan	277	Michigan	201	Maryland	172	Missouri	108
Texas	189	Minnesota	198	California	160	Michigan	99

ORIGIN OF MAJOR GROUPS OF ALIEN INTERNS AND RESIDENTS IN U. S.

1959–60		1958–59		1957–58	
Phillipines	2319	Phillipines	1982	Phillipines	1598
Turkey	748	Turkey	650	Turkey	587
Iran	581	Canada	563	Canada	535
Canada	539	Mexico	512	Mexico	500
Mexico	498	Iran	402	Germany	319
India	375	Korea	304	Korea	313
Greece	344	Greece	296	Greece	289
Japan	322	Japan	287	Iran	279
Korea	317	India	279	Japan	275
Germany	261	Germany	269	Italy	230

1956–57		1955–56		1954–55		1953–54	
Phillipines	1332	Phillipines	1065	Phillipines	776	Phillipines	429
Canada	576	Canada	584	Canada	520	Canada	354
Mexico	556	Mexico	489	Mexico	425	Mexico	255
Turkey	427	Germany	364	Germany	323	Germany	156
Germany	324	Turkey	320	Turkey	253	Turkey	145
Greece	305	Italy	260	Italy	242	Italy	139
Korea	296	Greece	232	Cuba	184	China	119
Japan	253	Korea	216	China	170	India	114
Italy	242	India	208	India	165	Cuba	87
India	203	Japan	190	Korea	153	United Kingdom	80

Stiles D. Ezell
John P. Hubbard
John Parks
John F. Sheehan
JAMES E. MCCORMACK, *Chairman*

REPORT OF COMMITTEE ON VETERANS ADMINISTRATION-MEDICAL SCHOOL RELATIONSHIPS

GRANVILLE A. BENNETT

In the two meetings of the committee, held in conjunction with the 1959 annual meeting of the Association, consideration was given to two subjects.

a) The current and projected utilization of Veterans Administration Hospitals by medical schools as indicated by tabulated responses to the committee's questionnaire; and

b) The existing interrelationship of Veterans Administration residency programs with those under medical school sponsorship as disclosed by tabulated responses to an inquiry conducted by the office of the Chief, Professional Training Division Education Service of the Veterans Administration.

The data, with interpretations of the first of these subjects, were published by the Association of American Medical Colleges in "Datagram," Vol. 1, No. 8, February, 1960.

The completed report pertaining to the second subject was furnished to members of the present committee on Veterans Administration-Medical School Relationships for information.

During the period since the 1959 annual meeting of the Association a report entitled "Survey of Medical Research in the Veterans Administration" has been published. This survey was conducted by a committee of the Division of Medical Sciences-National Research Council, under the chairmanship of Doctor Chester S. Keefer. The Director of studies for the survey was Doctor Robert I. McClaughry. The report in Appendix X, pages 128-131, summarized the opinions of the 36 deans who had responded by June 20, 1960, to a searching questionnaire which was distributed 2 months previously.

The Committee on Veterans Administration-Medical School Relationships believes that this report, along with other recent studies cited above, will prove helpful in improving the working relationships between Veterans Administration Hospitals and medical colleges in the interests of education and research.

The committee expresses its gratitude and sincere good wishes to Doctor John B. Barnwell as he retires from his position as Assistant Chief Medical Director for Research and Education.

Robert Berson
John E. Deitrick
A. J. Gill
F. Douglas Lawrason
Clayton G. Loosli
Philip Price
GRANVILLE A. BENNETT, *Chairman*

REPORT OF COMMITTEE ON MEDICAL SCHOOL-AFFILIATED HOSPITAL RELATIONSHIPS

DONALD B. CASELY

The Committee on Medical School-Affiliated Hospital Relationships functioned during the 1959-1960 year in concert with the Executive Committee of the Teaching Hospital Section—a natural outgrowth of the fact that the same person chaired both groups.

Three meetings were held during the year of the two committees:

1. October 29, 1959, Edgewater Beach Hotel, Chicago, at the conclusion of the annual meeting of the Teaching Hospital Section. This served as something of an organized meeting and plans for the year were discussed.

2. February 6, 1960, Palmer House, Chicago at the time of the annual meeting of the Congress on Medical Education.

3. April 18, 1960, Roosevelt Hotel, New York, at which plans for the annual meeting in October at Hollywood Beach, Florida, were solidified and speakers were selected.

We believe the purpose of the Committee on Medical School-Affiliated Hospital Relationships is best served by developing the closest possible liaison of the group with the Executive Committee of the Teaching Hospital Section. Members of the A.A.M.C. Committee serve in a valuable counseling capacity insofar as not only relationships are concerned but in delineating the problem areas which jointly affect medical schools and their affiliated hospitals. Overlapping membership in the two groups insures identity of purpose and unity of action.

Donald G. Anderson
Dean A. Clark
Gerhard Hartman
Robert B. Howard
Duane E. Johnson
J. Murray Kinsman
H. Houston Merritt
Henry N. Pratt
Charles Rammelkamp
DONALD B. CASELEY, *Chairman*

REPORT OF COMMITTEE ON MEDICAL EDUCATION FOR NATIONAL DEFENSE

WILLIAM S. STONE

Three joint meetings of the Committee on Medical Education for National Defense and the Federal MEND Council were held during the past year: on November 1, 1959, in Chicago; on February 6, 1960, in Chicago; and on June 14, 1960, in Miami Beach. At these meetings Council members, representing the Public Health Service, the Office of Civil and Defense Mobilization, and all branches of the Department of Defense, discussed with Committee members the major activities of the MEND program. The recommendations arrived at in these meetings served to advise and guide the office of the National Coordinator and the coordinators of participating medical schools in carrying out the program.

In previous years, schools selected to become affiliated did not begin active participation, even on an orientation basis, until January 1. This past year, because two important symposia were to be conducted in the fall and it was desired that the new schools be able to participate, the date for their affiliation was advanced to October 1, 1959. At this time the following fifteen schools began active participation in the MEND program: Albany, Arkansas, University of Chicago, Hahnemann, Jefferson, Minnesota, Missouri, New York Medical College, Southern California, South Dakota, Tennessee, Utah, Wayne, West Virginia, and Woman's Medical College.

At the June meeting in Miami Beach, eleven additional schools were accepted for MEND affiliation beginning October 1, 1960. These were: Alabama, Dartmouth, Florida, Georgia, Harvard, Johns Hopkins, Kentucky, State University of New York, St. Louis University, Seton Hall, and South Carolina. This will bring the total of MEND-affiliated schools to 81 of the nation's 86 undergraduate medical schools, in addition to Mayo Foundation Graduate School of the University of Minnesota.

Four well-attended symposia, a MEND coordinator's conference, and an orientation tour were conducted during the year. In addition, there were a number of successful regional coordinator's conferences and large-scale exercises in medical operations following a disaster.

On August 28–29, 1959, a North Central regional MEND conference was held in Madison, Wisconsin, under the auspices of the University of Wisconsin Medical School. Seventeen schools were represented at the conference: the University of Chicago, Creighton, Illinois, Indiana, Iowa, Kansas, Louisville, Loyola, Marquette, Mayo, Missouri, Nebraska, Northwestern, South Dakota, Washington St. Louis University, Western Reserve, and Wisconsin. Among the topics discussed were "The Intended and Interpreted Purposes of MEND"; "What Teaching Aids?"; "Travel and Speakers"; and "How Does One Teach Disaster, Trauma, and Atomic Holocaust?" The representatives of three schools in the orientation phase of MEND affiliation, and of three schools due to enter it in October, used the opportunity to discuss with veteran MEND coordinators the problems of setting up and operating a MEND program.

On October 12–16, 1959, the Public Health Service conducted the first MEND-sponsored symposium of the academic year on the topic "Preventive Medicine

and Health Mobilization." It was the first travelling symposium in the history of the MEND program. Sessions were held at the Robert A. Taft Sanitary Engineering Center in Cincinnati, Ohio; the Communicable Disease Center in Atlanta, Georgia; the Region III Office of the Department of Health, Education, and Welfare in Charlottesville, Virginia; and the HEW headquarters in Washington, D.C., with an afternoon session at the National Institutes of Health in Bethesda, Maryland. A total of 96 participants, 64 of them from medical schools, made the trip on the special train which was provided for that purpose.

On December 15–17, 1959, the Walter Reed Army Institute of Research conducted a MEND symposium on the topic "Blood, Fluids and Trauma." The symposium was attended by 132 medical school faculty members, the greatest number ever registered at a MEND-sponsored gathering, and by representatives of the armed services, Public Health Service, and Office of Civil and Defense Mobilization.

On January 11–15, 1960, a symposium entitled "Lectures in Aerospace Medicine" was conducted by the School of Aviation Medicine, USAF Aerospace Medical Center, Brooks Air Force Base, Texas. A total of 114 faculty members of medical schools attended the symposium under MEND auspices, the second greatest number ever registered at a MEND-sponsored symposium.

On January 23, 1960, a meeting of MEND coordinators in the Mid-Atlantic Region was held at the University of Virginia School of Medicine in Charlottesville. Representatives of Bowman Gray, Duke, the Universities of North Carolina and Virginia, the Medical College of Virginia, and West Virginia University made plans for their regional MEND activities during the coming year, among them the joint use of outstanding lecturers.

On February 6, 1960, the annual MEND Coordinators' Conference was held at the Palmer House in Chicago. More than 120 deans, coordinators and assistant coordinators from MEND-affiliated schools attended the various sessions. Following a short plenary session that opened the conference, the participants were broken down into discussion groups, which addressed themselves to the topics "Relationships with State and Local Groups," "Special MEND Projects," "Internal Organization for MEND Activities," "Relationships with Federal Agencies," and "Integrating MEND into the Curriculum."

During the afternoon pleanary session participants heard reports from the discussion groups, from MEND coordinators at three medical schools, and from the chairmen of the regional MEND conference which were recently held.

In addition to the open sessions, there was a breakfast meeting for the deans and coordinators of newly affiliated schools.

On March 17–23, the 1960 MEND Orientation Tour for deans and coordinators of medical schools newly affiliated with MEND was held. A total of forty medical educators, among them eight deans, four associate deans and six assistant deans, participated in the tour.

Navy and Marine Corps installations in the San Diego area were visited during the first 2½ days, including the Naval Air Stations at Miramar and North Island, the Naval Electronics Laboratory, the Marine Corps Recruit Depot, the San Diego Naval Hospital, the carrier U.S.S. Oriskany and Submarine Flotilla One.

Army and Air Force bases in and around San Antonio were viewed in the second half of the tour. The participants were privileged to see "Operation Survival,"

an impressive exercise on emergency medical care conducted by the Army Medical Service School, Brooke Army Medical Center, for a distinguished group of senior military commanders. The Surgical Research Unit at Brooke was also visited. The final day was spent at Lackland and Brooks Air Force Bases, including a tour of the laboratories of the USAF Aerospace Medical Center.

On April 20–22, 1960, the fourth and last MEND symposium of the academic year was held at Oakland and San Francisco, California. The symposium, which dealt with "Radiation, Clinical Research, and Rehabilitation," was attended by 80 faculty members of MEND-affiliated medical schools and by military and civilian physicians from the Bay area. It was conducted by staff members of the U.S. Naval Hospital, Oakland, the Naval Medical Research Unit #1, the Naval Biological Laboratory, the Naval Radiological Defense Laboratory and the Naval Prosthetic Research Laboratory, with the assistance of faculty members of the University of California.

On May 6–7 the National Coordinator, Captain Bennett F. Avery, MC, USN, served as an umpire for Operation Prep Pitt III, a large-scale medical civil defense exercise held annually in Pittsburgh, Pennsylvania. Among the sponsoring organizations were the Pittsburgh and Allegheny County Office of Civil Defense, the County Medical Society and the MEND Program at the University of Pittsburgh. More than 1,000 simulated casualties were sorted, monitored for radioactivity and evacuated by the participating disaster teams. The Civil Defense Emergency Hospital assigned to the University of Pittsburgh MEND Program was set up and operated during the exercise by students of the schools of medicine, nursing and pharmacy.

Because of the excellence of the courses on "Management of Mass Casualties" offered by the Army, the MEND program has for years sponsored the attendance of faculty members at these courses. It was possible to obtain an increased number of spaces for fiscal year 1960 so that a total of 68 medical school representatives were able to attend one of the two courses conducted by Walter Reed Army Institute of Research and the three courses held at Brooke Medical Center.

The following symposia were planned for the current academic year:

1. "New Trends in Aerospace Medical Research"—Wright-Patterson Air Force Base, Ohio; October 17–19, 1960.

2. "Defense Against Chemical and Biological Warfare"—Walter Reed Army Institute of Research, Washington D.C.; December 7–9, 1960.

3. "Submarine Medicine and the Habitability of Confined Environments"—Naval Medical Research Laboratory, U.S. Naval Submarine Base, New London, Connecticut; April 17–19, 1961.

4. "Organization for Emergency Health Services"—Office of Civil and Defense Mobilization Instructor Training Center, Brooklyn, New York; May 15–17, 1961.

There also will be a MEND Coordinators' Conference in Chicago on February 4, 1961, and a MEND Orientation Tour for deans and coordinators of recently affiliated schools on March 17–22, 1961.

Funds for operating the MEND program are furnished by the Army, the Navy and the Air Force, and by the Public Health Service on delegation from the Office of Civil and Defense Mobilization. A total of $720,000 has been appropriated for fiscal year 1961. Additional support is furnished by the Atomic Energy Com-

mission, which finances the cost of providing each year up to two visiting lectures in the field of radiobiology to each MEND-affiliated school.

John Z. Bowers
Lawrence Hanlon
Stanley W. Olson
John B. Truslow
Thomas F. Whayne
Chris J. D. Zarafonetis
WILLIAM S. STONE, *Chairman*

PRESIDENT HUNTER: "Before presenting the report of the Audio-Visual Education Committee, I wish to announce that a new directory of the Medical Film Library is now being published. This will include the items from the American Cancer Society."

"Also, *The Journal of Medical Education* will resume the publication of items of importance to the audio-visual field in medical education. This will be developed by the Audio-Visual Committee."

"The Executive Council recommends the acceptance of this report." Seconded. Voted.

NOTE: The report of this committee follows.

REPORT OF THE AUDIO-VISUAL EDUCATION COMMITTEE (FILMS, RADIO, TV, AND ELECTRONICS)

FRANK WOOLSEY

Subsequent to the 1959 Annual Meeting of the A.A.M.C., the Audio-Visual Committee received a communication from the Executive Director and the Executice Council asking it to develop recommendations as to the position which the A.A.M.C. should occupy in the area of films, radio, TV, and electronics, as to how this position should be related to other agencies operating in the same area, and finally as to how this position should be related to our schools of medicine, both individually and collectively. Dr. Darley also indicated in his letter of transmission that "no stone should be left unturned to insure adequate consideration of these questions." He cautioned that any recommended program should be realistic from the standpoint of need and cost and that the Committee should avoid unnecessary duplication of programs being conducted by other agencies.

Between the 1959 and 1960 Annual Meetings of the A.A.M.C., four Committee meetings were held for the purpose of carrying out the above change. Expenses incidental to these meetings were defrayed by a most welcome and appreciated grant of $10,000 from E. R. Squibb and Sons. The same corporation has offered and additional $5,000 to support further Committee work during 1961.

The following summary of the Committee activities is presented for your information:

1. Your Committee, as a result of its study, has concluded that the archaic concept of audio-visual education being concerned principally with the utilization of "teaching aids" has been replaced by the concept of audio-visual education which utilizes all applicable communications media and useful electronic instruments.

2. Your Committee has submitted to the Executive Council a "Blue-Print For Activities of A.A.M.C. in Films, Radio, TV and Electronics." This blue-print urges the development of a Medical Communications Division in the A.A.M.C. central Headquarters with appropriate financing and personnel. Such a Division

would allow the A.A.M.C. to be actively engaged in developments which will help all medical colleges to discharge their responsibilities with less effort and greater efficiency.

3. Your Committee urges the A.A.M.C. to develop effective, mutually beneficial liaison with all agencies active in the use of audio-visual media. To this end, during the past year the Audio-Visual Committee has established liaison with the International Federation for Medical Electronics and with the "Medical Radio System" of RCA-NBC.

4. During the coming year, your Committee plans to give thoughful consideration to further specific programs of service which the Association may render to medical education with particular reference to the relationship between general Association activities and individual schools of medicine in the area of films, radio, TV and electronics.

Jesse Crump
John E. Deitrick
Bernard Dryer
Robert B. Howard
Joseph Markee
William P. Nelson, III
Walter Rahm, Jr.
David Ruhe
FRANK WOOLSEY, *Chairman*

PRESIDENT HUNTER: "Now, I'd like to call your special attention to the reports of two new standing committees, the first being the Committee on Laboratory Animal Care, which I think is particularly pertinent at this point in time because of the problem of the Cooper Bill."

"Second, another new standing committee is the one on Planning Medical School Facilities, which is a joint activity of this association with the A.M.A. Council on Medical Education and Hospitals, and the Public Health Service in which a special study is being undertaken of the needs of the possible patterns of architectural planning in new medical school construction.

"Now, at the very outset, the potential pitfall in the activities of this group, of course, was an indication that standardization was possible, which is not, and I think on the other hand, it is very important to have useful data available for those who are planning activities in this regard, so long as this major pitfall is avoided, and I should like to report that I think this is just what's happened.

"I believe this committee is developing various useful variations on the theme, with no intent of saying that a medical school must have so many square feet of this or that or the other per student or per anything else, but giving some guide lines that somebody can use, some arrangements that have been found to be satisfactory and so on.

"The Executive Council recommends the adoption of these reports." Seconded. Voted.

NOTE: The reports of the Committees on Animal Care and Planning of Medical Education Facilities follow.

REPORT OF COMMITTEE ON ANIMAL CARE

THOMAS B. CLARKSON

In March 1960, the Executive Council of the Association of American Medical Colleges established this Committee on Laboratory Animal Care with the ultimate

aim that this committee will make recommendations to the Council which will place the Association in a position of playing more of a leadership role in the care and use of laboratory animals in medical schools.

The following areas have been adopted by the committee as guidelines for committee activities for the immediate future:

1. The Committee will make themselves available for consultation and advice concerning the medical and husbandry care of laboratory animals in medical school situations and for advice concerning the organization of new programs for laboratory animal care.

2. To coordinate the aid which is now available from other organizations such as the Animal Care Panel, The American Board of Laboratory Animal Medicine and the National Society for Medical Research.

3. The committee plans to sponsor symposia on the organization and operation of facilities for laboratory animal care at future meetings of the Association of American Medical Colleges.

4. The committee is now preparing a syllabus which can be used as a guide for the medical school administrator in the organization of a unit for laboratory animal care. This syllabus will represent an expansion of the series of articles which appeared in the January, 1960, issue of *The Journal of Medical Education.*

Bennett J. Cohen
William C. Dolowy
THOMAS B. CLARKSON, *Chairman*

REPORT OF COMMITTEE ON PLANNING OF MEDICAL EDUCATION FACILITIES

GEORGE T. HARRELL

This Committee was appointed in February, 1960, to work with a group from the United States Public Health Service to investigate space and equipment requirements for the construction of new medical schools. The Committee met in March with Lee Powers from the A.A.M.C. Executive Staff and representatives of U.S.P.H.S. in Washington to plan a study. It was agreed that Dr. Jack Haldeman, a physician who has worked with the Hill-Burton hospital construction program, would furnish from the Division of Hospital and Medical Facilities, U.S.P.H.S. several architects, an engineer, and a writer to do the detailed work on the study, in collaboration with the Committee. Accordingly the following trips were made jointly to inspect facilities and to collect data:

1. University of North Carolina, as an example of a state university medical school in a relatively new plant, on a general university campus with Colleges of Nursing, Pharmacy, Public Health and Dentistry;

Cornell as an example of a private school in an older plant, separated from the parent university campus, located in a large metropolitan area, with a large volunteer faculty and few educational responsibilities other than medicine;

2. University of Minnesota as an example of a large state university in a large city with a large graduate program, housed in multiple buildings of varying age;

Western Reserve as an example of a private school located in a large metropolitan area, with an integrated curriculum and a graduate approach to associated health professions.

3. University of Florida as an example of a new medical school on a large state

university campus, located in a small town, associated with Colleges of Nursing, Pharmacy, and Health Related Services, all teaching at undergraduate level;

4. Dartmouth as an example of a private two-year school of small size, located on a university campus in a small community;

5. UCLA as an example of a state university with a new physical plant, in a large metropolitan area, associated with a College of Nursing;

University of Southern California briefly, as an example of a new unit laboratory;

Stanford as an example of a private university in a relatively small city, with a new physical plant including unit laboratories, having undergone a faculty and curriculum reorganization under the impact of a move from a large metropolitan area separated from the parent university;

University of Washington as an example of a state school in a relatively new plant, on a university campus, associated with Colleges of Nursing and Dentistry and a large responsibility for undergraduate and other teaching in the university.

One member of the committee was present on the initial visit to each of these schools; the U.S.P.H.S. people subsequently made more detailed visits, collecting additional architectural data at some of the institutions.

The Committee would like to express its deep appreciation to the member institutions for making the visits profitable and informative. The data are being analyzed. The first draft of a report, which might subsequently be issued as a publication jointly by A.A.M.C. and U.S.P.H.S., is being written. Another meeting of the committee is planned for October, to review data, conclusions and the draft of material for publication. It is hoped that some general principles, which might be used as guide lines by administrative officers of universities contemplating establishment of medical schools, could be developed to indicate amount and type of space required, staffing patterns, construction costs, operating costs, with examples of architectural units found useful and efficient.

John Z. Bowers — John M. Stacy
William R. Willard — GEORGE T. HARRELL, *Chairman*

PRESIDENT HUNTER: "Now, as to the A.A.M.C.-P.M.A. Liaison Committee, P.M.A. being Pharmaceutical Manufacturers Association, we have had a number of meetings with presidents of the pharmaceutical firms on an informal basis. We are attempting to develop and maintain liaison in this important but touchy and knotty area.

"I would also like to personally say that I find dealing with the top level people in this industry one that gave us considerable encouragement as to the breadth of outlook that exists there.

"There are inherent difficulties in the basic philosophy involved. But just because these difficulties exist is no reason to abandon dealings with these people, and I think we have a number of very important areas under consideration.

"Just how this will move in the future, I am not sure, but I did want to make those general remarks on the subject before turning to this committee's report."

"The Executive Council recommends the adoption of the report of the A.A.M.C.-P.M.A. Liaison Committee." Seconded. Voted.

NOTE: The report of this committee follows.

REPORT OF A.A.M.C.-P.M.A. LIAISON COMMITTEE

THOMAS H. HUNTER

The A.A.M.C.-P.M.A. Liaison Committee has met four times during the year and its Sub-Committee on Planning twice. The discussions dealt chiefly with the identification of areas that should be of common interest to the two agencies. In the main the areas that were discussed are outlined in the report of the special *Ad Hoc* Committee on Planning which is attached.

After a year's experience with the statement, "Furtherance of Medical Education by the Pharmaceutical Industry," although there have been instances where both schools and industry have acted to the contrary, the Committee feels that much progress has been made in relieving the problems toward which it was directed. It has been decided to rewrite this statement and it is hoped that the Committee's open hearing will lend direction to this consideration.

The Liaison Committee intends to continue its discussion of the general areas outlined in the *Ad Hoc* Sub-Committee report and invites suggestions as to other items that might be included on the coming year's agenda.

George N. Aagaard, Washington
George Cain, Abbott Laboratories
John G. Searle, G. D. Searle & Company
Gifford Upjohn, The Upjohn Company
Richard H. Young, Northwestern
THOMAS H. HUNTER, *Chairman*

REPORT OF P.M.A.-A.A.M.C. *AD HOC* COMMITTEE

JOHN E. DEITRICK

In January, 1960, an *Ad Hoc* P.M.A.-A.A.M.C. Committee was appointed composed of eight medical directors or vice presidents for research from a corresponding number of pharmaceutical firms and eight individuals from various medical schools representing the A.A.M.C. The objective of this committee was to explore areas where the schools and the drug industry might have common interests which could be furthered as well as areas in which disagreement existed which might be discussed and clarified. The committee was the result of the meetings which had been held between members of the Executive Committee of the A.A.M.C. and a group of presidents of drug firms representing the P.M.A.

The first meeting of the *Ad Hoc* Committee was held on February 3, 1960. Topics such as the control of the dissemination of drug information, clinical drug evaluation, the training of clinical investigators, the need of financial support for clinical pharmacologists, student scholarships, fellowships for trainees at the resident level, and how the P.M.A. might help further medical education were discussed. No definite conclusions were reached.

A second meeting was held on April 21, 1960. The committee reached the following conclusions:

1. Promotional material and product information should not be sent directly to medical students. The faculty has the responsibility to decide what materials are suitable for students. There should be further exploration of the materials and drug information which would be helpful in teaching students.

2. There was general agreement that there exists a vacuum in the postgraduate education of physicians especially in relation to therapeutics. This is an area in which the medical schools and the pharmaceutical manufacturers might have a common interest. The recommendation was made that a subcommittee might be appointed and financed with a grant to explore the problems of postgraduate education.

3. The need for a broader program and higher standards for the clinical testing of new drugs was repeatedly emphasized by the pharmaceutical representatives. The point of view of the medical schools was that drug testing for the industry was not the responsibility of the medical colleges. The principal college responsibilities are to train and educate physicians and scientists who will be competent to carry out such testing when employed for this purpose. Some schools, however, might be prepared to establish clinical testing units if adequately financed, particularly if in the process the faculty in pharmacology and in clinical and experimental therapeutics could be enlarged and strengthened. Such an approach would make it possible for the schools to improve the teaching in these areas and to produce a larger number of well trained men for the industry. The medical directors of the pharmaceutical firms felt that such a program would require a major policy discussion by their companies, this particularly since the National Institutes of Health seem about to become active in these areas.

The most important result of the two meetings of the *Ad Hoc* Committee was to clarify the position of the medical schools with relation to the drug industry and to make evident the need for the industry to establish some policy with regard to the responsibilities in medical education at the undergraduate, graduate and postgraduate levels. The minutes of the meetings have been sent to the President of the P.M.A. and they have asked for further meetings between themselves and members of the Executive Committee of the A.A.M.C. The first such meeting was held in July, 1960. It seems doubtful whether the *Ad Hoc* Committee should hold further meetings until policies have been established at the level of the P.M.A. Executive Committee or the Executive Council of the A.A.M.C.

C. A. Bunde, The Wm. S. Merrell Company
E. L. Burbidge, The Upjohn Company
B. W. Carey, Lederle Laboratories
Arthur R. Colwell, Northwestern
Harry Dowling, Illinois
Solomon Garb, Albany
G. R. Hazel, Abbott Laboratories
John B. Hickam, Indiana
Christian Lambertsen, Pennsylvania
Louis C. Lasagna, Johns Hopkins
Peter V. Lee, Southern California
M. R. Nance, Smith Kline & French Laboratories
R. M. Rice, Eli Lilly & Company
W. D. Snively, Mean Johnson & Company
Irwin C. Winter, G. D. Searle & Company
JOHN E. DEITRICH, Cornell-*Chairman*

PRESIDENT HUNTER: "The Executive Council recommends the acceptance of the report of the Committee on International Relations in Medical Education." Seconded. Voted.

NOTE: The report of this committee follows:

REPORT OF COMMITTEE ON INTERNATIONAL RELATIONS IN MEDICAL EDUCATION

ROBERT A. MOORE

There have been no meetings of the full committee during the year. The sub-committee, responsible for selection of the Smith, Kline & French Foreign Fellowship recipients, has met twice. The report of this sub-committee is appended (Appendix I).

Last year the committee submitted a report and recommendation for the establishment of a Division of International Education within the A.A.M.C. This report has been translated into a grant proposal for the possible financing of such a division. The grant request is now under preliminary consideration by a foundation.

Thomas Almy
Jean A. Curran
Wiley Forbus
H. Van Zile Hyde
Howard M. Kline
Elizabeth Lam
O. R. McCoy
Norman Nelson
Francis Scott Smyth
Myron Wegman
ROBERT A. MOORE, *Chairman*

REPORT OF SELECTION COMMITTEE FOREIGN FELLOWSHIPS PROGRAM

ROBERT A. MOORE

Administered by the A.A.M.C., the Foreign Fellowships Program, begun this year as the Smith, Kline & French Foreign Fellowships for Medical Students, enables selected medical students, who have finished either their third or fourth year of training, to benefit from unusual clinical experiences and to practice preventive medicine at outpost facilities in greatly differing societies and cultures. At present, the program is set up for a 3-year period ending in 1962.

During 1960 grants, totaling some $50,000, were made to 29 students under the program.

Resume of applications for 1960:

Exhibit I. Recipients of grants by school and place of Fellowship

Exhibit II. Breakdown of applicants by schools.

Descriptive brochures and applications for the 1961 program have been mailed to all deans. Students interested in making application should see their deans. Other individuals interested in the program should send inquiries to A.A.M.C. headquarters.

Carroll L. Birch
Robert G. Page
Richard A. Young
ROBERT A. MOORE, *Chairman*

SMITH KLINE & FRENCH FOREIGN FELLOWSHIP PROGRAM

1960

No. Applicants	No. recipients	No. withdrawals
93	29	1

No. Schools having applicants	No. Schools having applicants accepted
51	29

EXHIBIT I

RECIPIENTS OF SMITH KLINE & FRENCH FOREIGN FELLOWSHIPS.

1960

Student	School	Station
Askin, Stephen J.	Pittsburgh	Thailand
Bentson, John R.	Wisconsin	Peru
Bessinger, Colonel D., Jr.	North Carolina	Philippines
Bush, Jimmie W.	Med. Col. of Virginia	Nigeria
Buterbaugh, John C.	Jefferson	Bolivia
Dierwechter, Ronald A.	Yale	Liberia
Faulkner, Robert	Baylor	Southern Rhodesia
Greenwald, Peter	SUNY/Syracuse	Iran
Heimburger, Richard A.	Vanderbilt	Libya
Keller, Kent E.	Washington	West Nile, Africa
Mabeus, Duane F.	Nebraska	Thailand
Marshall, Robert M.	Johns Hopkins	Nigeria
Miller, David R.	Ohio	Ethiopia
Mills, Joel L., Jr.	Tulane	Durban, S. Africa
Moncur, Larry R., Jr.	Rochester	India
Park, Benjamin S., Jr.	Buffalo	Southern Rhodesia
Rienstra, John C.	Wayne State	Nigeria
Ryan, James	Cornell	Brazil
Scaff, Jack H., Jr.	Seton Hall	Philippines
Schoenfeld, Eugene L.	Miami	Lambarene, Africa
Schuring, Arnold (& wife)	Michigan	Nigeria
Scott, Charles C.	Kansas	Philippines
Severino, Ronald M.	Stritch	Nigeria
Smith, Lindsay B.	Northwestern	Bolivia
Stever, Robert C.	Pennsylvania	Nepal
Thomas, Andrew L.	Howard	Ghana, W. Africa
Tompkins, Richard L.	Chicago	Indonesia
Wallace, Wm. T., Jr. (& wife)	Vermont	Southern Rhodesia
Whitis, Peter R.	Florida	Afghanistan

PRESIDENT HUNTER: "Before I call upon Dr. Robert A. Moore for a supplemental report, the membership should now receive a proposal developed by our guests from Latin America.

"The group of Latin American medical educators is deeply grateful for the A.A.M.C.'s invitation to attend its 71st Annual Meeting and wishes to make the following comments and proposals:

I. The group appreciates immensely the interest of the A.A.M.C. in fomenting closer relations between the medical schools of the hemisphere.

II. This interest is reciprocated and, moreover, the group wishes to assure the

A.A.M.C. of its genuine desire to improve the caliber of medical education in Latin America.

III. The group believes that a plan to raise the level of medical education should be carried out. In such a program the more developed schools should give every possible aid to those that are less developed.

IV. Due to the existing disparity in the development, facilities and educational concepts of the medical schools in the hemisphere, the group believes that the creation of a formal "Association" or "Federation" at this time would be premature. On the other hand, some mechanism should be sought to establish closer relations between schools and to provide aid where such aid may be required.

V. The group, therefore, proposes that the A.A.M.C. consider the formation of a permanent committee to aid in furthering these objectives, attempting to utilize whatever internal or external resources it deems fitting.

VI. The group also proposes that, immediately prior to the 72nd Annual Meeting, the A.A.M.C. sponsor a specific program to discuss Pan American medical education with participation of interested persons from all of the Americas. Meanwhile, it is hoped that a delegation from the A.A.M.C. will be able to attend the "Conferencia de Ensenanza Medica Latino-Americana" to be held in Montevideo in November, 1960.

VII. The group wishes to express its sincere appreciation to the Executive Committee and to the membership of the A.A.M.C. for their kindness, warm interest and cordiality at the 71st Annual Meeting of the association in Hollywood Beach.

As I said, I think this is an indication that we are not proposing sweeping reorganization, but are trying to move ahead in concert with these gentlemen who are aware of the problems on the scene with the help of other agencies such as the Rockefeller Foundation, the Kellogg Foundation, and ICA, and so forth.

In terms of trying to define the appropriate role, the Pan-American Sanitary Bureau, of course, will be involved in this very heavily.

Do we want to pass this resolution formally? I think it would be in order to call for the acceptance of this resolution from the Latin American meeting."

Motion made and seconded. Voted.

PRESIDENT HUNTER: "I should now like to call on Dr. Moore, chairman of this committee, who has a supplemental report."

DR. MOORE: "Mr. Chairman, I beg your indulgence to bring before you a resolution, perhaps a little out of order, but the committee feels there is considerable urgency about the matter."

"The reason for this urgency will become apparent in a moment.

"For many years, those who have been confronted with bringing to the United States fellows and trainees have had the problem that many of these people return to their own country after having learned some special technique and do not have the facilities or the equipment or cannot use the facilities or equipment in their own country, and therefore some of the effort put in this training them in these specific techniques is lost.

"A number of the private agencies have made provisions for this. It was brought to our attention that under certain circumstances, the agencies of the United States Government cannot do this, and that at this moment, the Congress of the United States is considering changes which may be suggested by the State Department and the Authorization Act of these agencies.

"I therefore bring before you, Mr. Chairman, this resolution of the Committee on International Relations of Medical Education:

WHEREAS, it is at times not possible for trainees to make available to their own nation and people techniques of educational research and clinical programs which they have received special post graduate training in overseas.

THEREFORE BE IT RESOLVED that the Association of American Medical Colleges urge all agencies, public and private, which award fellowships and traineeships to those from other nations, to assist in making available in the home institution, such facilities and equipment as are feasible and desirable to continue the professional activities for which the fellow or trainee has been trained in the United States."

"Mr. Chairman, I move the adoption of this resolution." Seconded and voted.

PRESIDENT HUNTER: "The Executive Council recommends the acceptance of the report of the Committee on Medical Care Plans. Seconded and voted."

NOTE: The report of this committee follows.

REPORT OF COMMITTEE ON MEDICAL CARE PLANS

JOHN F. SHEEHAN

At the business session on November 4, 1959, during the last Annual Meeting of the Association of American Medical Colleges, the membership, on the recommendation of the Committee on Medical Care Plans, approved a statement entitled, "Provision of Medical Service for the Care of Paying Patients by Salaried Clinical Facilities of Medical Schools." (*J. M. Educ.*, 35:622-23, June, 1960)

At the same business meeting a second statement, "Provision of Medical Service for Paying Patients by Residents," was distributed. The membership approved the recommendation of the Committee on Medical Care Plans that this statement be referred to the Executive Council for further study. Since then, the Council on Medical Education and Hospitals of the American Medical Association has also prepared a tentative statement on the relation of the resident to the paying patient. Both statements have been discussed by represenatives of the Executive Council of the A.A.M.C. and the Council on Medical Education and Hospitals of the A.M.A. The discussion will be continued at the meeting of the Liaison Committee of the A.M.A. Councils on Medical Service and on Medical Education and Hospitals in late November. Representatives of the A.A.M.C. Executive Council, including the Chairman of the Committee on Medical Care Plans, have been invited to attend. Hence, the Executive Council of the A.A.M.C. has decided to postpone the report of its study of the statement on residents and paying patients until the meeting of the deans in February, 1961. The Committee on Medical Care Plans concurs.

At a special meeting in Chicago on February 6, 1960, the Committee on Medical Care Plans re-approved its statement on residents and paying patients and discussed the scope of the Committee's activities. Among the items considered were the following:

A. The impact of medical care plans on the following:

a) Supply and type of teaching patients.
b) Quality of instruction at the undergraduate and graduate levels.
c) Attainment of university goals in education.
d) Financing of medical education, with particular reference to recruitment and retention of clinical faculty and provision of adequate stipends for residents.
e) Administrative control by executive officers of the medical school and university.
f) Interdepartmental relations, particularly between basic science and clinical departments.
g) Relations between geographic full-time faculty on the one hand and volunteer members of the clinical faculty or non-faculty private practitioners of medicine in the adjacent community on the other.
h) Effect of pattern of medical service rendered in medical center-hospitals on the pattern of practice in the community and the reverse—the effect of the latter on the former.

B. Operation of diagnostic and treatment centers for ambulatory patients by medical schools or medical school-centered teaching hospitals.

C. Admission of paying patients to public teaching hospitals (Colorado General Hospital is an example).

Since many of the items listed would undoubtedly be discussed at the 1960 Teaching Institute, it was the consensus of the Committee on Medical Care Plans at the February, 1960, meeting that long-range planning be delayed until a report of the transactions of this Institute became available.

PRESIDENT HUNTER: "You have heard at this meeting the preliminary report by Dr. Richard Saunders on the internship study.

"I think that it is quite apparent that the data appearing in this study are going to be of considerable importance.

"The final report of that committee will appear as a separate publication to be available in 2–3 months.

"I think the committee supervising this study and the Kellogg Foundation supporting it, both deserve our very hearty thanks for a job well done.

"The Executive Council recommends the acceptance of the report of the Committee on Internships, Residencies and Graduate Medical Education." Seconded. Voted.

NOTE: The report of this Committee follows:

REPORT OF COMMITTEE ON INTERNSHIPS, RESIDENCIES, AND GRADUATE MEDICAL EDUCATION

E. HUGH LUCKEY

During the past year the committee has been concerned largely with the study of the internship conducted by the Association under the direction of Dr. Richard Saunders. One meeting of the full committee was held on February 6, 1960, at which Dr. Saunders reported on the progress of the study. In addition, all but two members of the committee accompanied Dr. Saunders on at least one of the survey visits to the 27 participating hospitals. Dr. Saunders has kept the chairman of the committee informed of the progress of the study. The accumulation of statistical data, tabulation of responses to questionnaires, and visits to the hospitals have now been completed. Dr. Saunders is now in the process of writing the report and drawing conclusions from the large mass of information accumulated during the study. A preliminary report will be made by Dr. Saunders at the annual meeting in October of this year, and the final report will be available in due course.

The only other matter which needs continued consideration by the committee involves the establishment of a uniform data for appointment of first-year assistant residents. Several Departments of Phychiatry in the northeastern states are participating this year in a "gentlemen's agreement" for this purpose, but a satisfactory arrangement has not been possible in other disciplines. High hopes were held for an agreement in Departments of Medicine. However, the Committee on Internships and Residencies of the Association of Professors of Medicine

has not been able to obtain the 80 per cent agreement necessary to initiate the plan this year.

Howard Armstrong
R. G. Holly
Robert J. McKay
Carl Moyer
John W. Patterson
R. D. Pruitt
Milton Rosenbaum
Samuel Trufant
E. HUGH LUCKEY, *Chairman*

PRESIDENT HUNTER: "The Executive Council recommends the acceptance of the Committee on Federal Health Programs." Seconded. Voted.

NOTE: The report of this committee follows:

REPORT OF COMMITTEE ON FEDERAL HEALTH PROGRAMS

LOWELL T. COGGESHALL

During the second session of the 86th Congress, various members of your committee have made contacts at local and national levels on the appropriation bills and have testified before sub-committees at hearings on medical legislation. Although seemingly rather a meager year, one of the most important bits of legislation over the past decade, in my opinion was enacted. This was the *Institutional Grants* bill on which I will comment below.

In the appropriations hearings no new legislation was involved and no requests were made to appear. Senator Hill invited only members of the administration before his committee. Our only comments were in writing to the effect that the funds for research facilities construction be continued and the restriction on 15 per cent overhead be removed.

Hearings were held in the House on (1) HR 6906, a bill to authorize ten-year program of grants for construction of medical educational facilities, (2) HR 10255, a bill to amend the Public Health Service Acts to provide federal assistance to states which award *scholarships* to students of medicine, (3) RH 10341, a bill to amend the Public Health Service Acts to authorize grants-in-aid to universities to strengthen their programs of research and reseach training in sciences related to health. Hearings were held only in the House. Berson offered testimony in support of the scholarship bill, while Coggeshall appeared in behalf of the medical school education construction and the institutional grants.

As all of you are aware, the total appropriations for 1961 advanced to $560 million from $400 million. The House refused to remove the restrictions on overhead above 15 per cent. There was complete funding of all the pre- and post-doctoral training programs and in all probability a career development program will be established for a minimum of one hundred $20,000 professorships. There was $25 million for clinical research centers, mostly on a non-categorical basis.

As far as results on new legislation were concerned, hearings were held just before the adjournment for convention and actually the chairman of a House sub-committee stated in his preamble to the hearings little activity if any could be expected in the legislative field this year.

He felt the Institutional Grants bill was probably the least likely and there might be no necessity for commenting on it at this time. However, since I was prepared I requested an opportunity to speak of the matter and perhaps it would be helpful in succeeding years. (Testimony attached). As it developed, on practically the last day before the Congress adjourned after the Convention, Senator Hill and Congressman Roberts conferred and under certain parliamentary procedure the Institutional Grants bill was brought before both Houses and without objection was passed. In essence it is a bill which provides that up to 15 per cent of the total research funds granted to the N.I.H. can be distributed to medical schools on a formula basis to strengthen their overall education and research program. Although the director of the N.I.H. is still conferring with the staff and universities as to the proper way of distributing these funds, it is probable that a gradual program will be developed with 5 per cent of the fund being allocated the first year, namely, July, 1961, 10 per cent the following, and 15 per cent the third year.

The failure to change the 15 per cent overhead has occurred so many times that the future looks dismal, and the probability of a different mechanism for financing the actual costs of doing the research projects will have to be found. However, when all things are considered it probably was the most significant year amongst those of the past decade.

George N. Aagaard
Donald G. Anderson
George Armstrong
Robert C. Berson
John Z. Bowers
A. J. Gill
Gerhard Hartman
Joseph C. Hinsey
Thomas H. Hunter
Clayton G. Loosli
Homer Marsh
John McK. Mitchell
John Parks
Isidor Ravdin
Thomas B. Turner
John D. VanNuys
Richard H. Young
LOWELL T. COGGESHALL, *Chairman*

STATEMENT OF DR. L. T. COGGESHALL, VICE PRESIDENT, UNIVERSITY OF CHICAGO ON INSTITUTIONAL GRANTS

1. It is a pleasure to appear before the committee. I am fortunate in being able to draw upon my experience not only as dean of the University of Chicago Medical School but also as a past president of the Association of American Medi-

cal Colleges and as a member of the Bayne-Jones Committee which carefully considered the issues facing medical research and medical education and recommended the initiation of an institutional research grants program.

2. During the past decade we have witnessed substantial growth in federal support for medical research. In the early years educational institutions accepted such support with some qualms. We were leary of federal control; we knew that short-term support could not assure the continuity essential for productive research. These fears of federal control and "soft money" have long since been dispelled. More important, the broad support of medical research through federal programs has brought about a substantial national medical research effort dedicated to meeting the health needs of the people.

3. I have characterized this program as national because the decision to support individual project applications is made without reference to geographic or institutional considerations. These decisions are based upon the judgment of scientific peers employing criteria of scientific merit, promise and feasibility. While these decisions have been made at the national level, they have drawn heavily upon the counsel of the nation's scientists.

Gradually, through the accretion of individual research projects, medical schools have developed substantial research programs. This extensive support through the project system has contributed significantly to the advancement of knowledge. At the same time such support has had a substantial influence upon improving the quality of medical education. The productive interplay of research and teaching has developed a new corps of medical educators. Medical education has not suffered at the hands of research; it has flourished, contrary to some popular misconceptions.

4. Despite these notable achievements in the expansion of knowledge and the improvement of medical education, Federal support of medical research through the project system has not provided a strong and assured base for institutional growth and development. Yet such strength is essential for the future development of medical research. About one-fourth of the nation's total medical research effort takes place within the laboratories and clinical facilities of the nation's 85 medical schools.

Exclusive reliance upon the project system has engendered some problems which undermined the strength of educational and research institutions. Among the problems are:

(1) Medical schools have encountered difficulty, quite frankly, in retaining a substantial measure of control over the content, emphasis, and direction of their research and training activities. (2) Lacking any significant amount of unrestricted moneys for the support of research which we can administer as we see fit, many schools attempted to expand research in areas where funds were readily available, while other problems of a less dramatic nature but no less scientific significance have been given lesser priority. (3) Strong departments with outstanding researchers have attracted grant support and grown stronger. Weak departments have had greater difficulty in obtaining support for their research activities which could give them the necessary impetus for improvement. (4) I do not mean to imply, however, that such restrictions upon research funds have caused schools to develop problems which they did not want. Rather the problem is our inability to finance and develop equally important research activities which

may be of less interest to Federal agencies but which the dean, faculty, and research staff know are needed to give balance and direction to their medical research and their research training programs.

5. Another major problem facing many schools is the inability to provide career stability and opportunities for faculty and staff receiving a large measure of support through grants or other restricted forms of research support. Most schools have been reluctant to provide tenure appointments for staff members whose work is tied to a specific and finite research activity. Generally speaking, few of these staff members enjoy regular permanent faculty appointments. Many of them are excluded from faculty retirement plans and other institutional benefits. The situation creates insidious distinctions which diminish the attractiveness of research careers. Thus, large numbers of research investigators are becoming increasingly dependent upon the system of support which cannot deal with them as individuals, with their careers, with their relationship to the teaching and research role of the institutions where they work. Only the institution itself can make these judgments.

6. The proposed institutional research grant, for the first time, will permit the institution to allocate funds in a manner which it believes to be best calculated to: (1) Strengthen its present medical research and research training activities, (2) nourish its potential for future growth, and (3) undergird its capacity to absorb and provide better training for larger numbers of medical students, graduate students, and a host of other students in a variety of health professions ranging from nursing to physical therapy.

The institutional research grant would:

(1) Provide genuine assurance of a continuing base of research and research training support. With this assurance the institution can develop its research and training potential in a planned fashion taking into account its particular needs and objectives;

(2) Provide for stable support of careers in research;

(3) Permit the establishment of centralized service facilities such as animal houses, library, central supply, and kitchen service, and even a biophysical instrumentation setup which could be utilized by researchers throughout the school;

(4) Enable the school to exercise more effectively its judgment as to the appropriate balance of its program;

(5) Make funds available to be put at risk in the support of beginning investigators and new ideas prior to their development to the point where they can be supported by the more formal research support;

(6) Facilitate worthwhile pilot studies of an exploratory character to determine the feasibility of conducting research; and

(7) Provide the school with the flexible support necessary to strengthen its weaker departments by providing teaching appointments to promising young men and guaranteeing them stable support for the first few developmental years so crucial to the attraction and retention of a high-caliber faculty.

7. In summary: Each of these features will have a profound effect upon the future of the nation's medical research program. The proposed institutional research grant program would greatly strengthen the educational and research institutions which are the fountainhead for scientific progress and educational advancement.

This nation faces tremendous challenges in the decade ahead. It is my sincere conviction that the proposed institutional research grants program would also

enable these institutions to discharge more effectively their obligations toward medical research and research training in the national interest.

PRESIDENT HUNTER: Now, as to the Committee on Federal Health Programs, I should like to pause a moment here and say that this activity is obviously one of our very central concerns and your Council and Dr. Coggeshall's committee have devoted a great deal of time and thought to the activity of the Association in this regard.

Day before yesterday, Dr. Coggeshall's committee had a meeting with the representatives from the Public Health Service and the National Institutes of Health.

I can also assure you that your president-elect has this matter of our relationships with the federal agencies very much in the forefront of his thinking. I think that you can look forward to leadership from him in this regard to a far greater extent than I personally have been able to provide for you because of my own shortcomings.

Dr. Coggeshall, do you want to say a few things before I close? You have some resolutions to present, I know.

DR. COGGESHALL: That is right. Thank you, Dr. Hunter.

In the considerations of next year's legislative program, it is important that certain resolutions be presented to the Association. I will present these one at a time. The first has to do with construction:

WHEREAS, programs for the strengthening and the expansion of medical schools of the nation are one of the most urgent needs of the American people, both for the health of the people and for increasing international responsibilities in this field, and

WHEREAS medical education of a high quality cannnot be conducted in the absence of medical research, and

WHEREAS Congress has authorized a program of federal assistance in the construction of medical research facilities in 1956, which program has been of great value, and

WHEREAS several members of Congress have sponsored legislation to extend this program and to expand it to include educational facilities,

THEREFORE BE IT RESOLVED that the membership of the Association of American Medical Colleges at its Seventy-First Annual Meeting go on official record as being in complete accord with the compliance of federal financial assistance to the construction of new and the expansion and modernization of both research and educational facilities for the schools of the nation.

Mr. Chairman, I move the adoption of this portion. Seconded. Voted.

DR. COGGESHALL: The second resolution relates to the question of overhead. We are again reaffirming our position.

WHEREAS, the United States Public Health Service and many of its subdivisions, particularly the National Institutes of Health, have rapidly increased their support of medical research, and

WHEREAS numerous studies have shown that the indirect cost is actually far in excess of this allowance, and

WHEREAS, this difference must be made up from funds which otherwise would support programs in education, therefore

BE IT RESOLVED that the medical schools of the United States, which comprise the institutional membership of the Association of American Medical Colleges request the United States Congress to require that all federal agencies that support medical research provided for the full costs thereof.

Mr. Chairman, I move the adoption of this portion of the report. Seconded. Voted.

DR. COGGESHALL: The third relates to clinical research facilities.

WHEREAS, the provision of clinical research facilities to medical schools is a much needed extension of the federal health research program, and

WHEREAS, the extension of this program appears to be a logical development, therefore

BE IT RESOLVED: One, that every effort be made to maintain the clinical research facilities in the main stream of medical student and post-doctoral teaching, and,

Two, that maximum flexibility be allowed to medical schools in determination of the type of clinical research that will be carried on in these facilities.

Mr. Chairman, I move the adoption of this resolution. Seconded. Voted.

The fourth resolution is concerned with the new programs of the National Institutes of Health.

WHEREAS, the newly established and expanded programs of the National Institutes of Health for institutional research grants, career research professorships, senior fellowship grants, special fellowship grants, and clinical research facilities are of fundamental and long range significance to the medical schools of this country, and

WHEREAS, the policies under which these programs will be conducted will have important implications for the operation of our schools,

BE IT RESOLVED that the Association of American Medical Colleges request the Director of the National Institutes of Health to provide the opportunity for consultation with him with regard to the policies that will be developed in the implementation of these programs, and

BE IT FURTHER RESOLVED that the president of the Association of American Medical Colleges be authorized to appoint representatives of the association to meet with the Director of the National Institutes of Health for this purpose.

I move the adoption of this resolution. Seconded. Voted.

PRESIDENT HUNTER: Now, the next resolution relates to the Cooper Bill.

WHEREAS, this country has witnessed for the first time an attempt this year by certain lay, nonprofessional interests, to induce the Congress of the United States to enact legislation which would impose restrictions and encumbrances on medical research and teaching, and

WHEREAS, the stated purpose of such bills is to obtain humane treatment of animals employed in research; and

WHEREAS, the university authorities of all medical schools and research institutes are responsible for the humane care and treatment of all animals employed in research and teaching and affirm that humane principles and practices in the care and treatment of animals are safeguarded and practiced in their institutions; and

WHEREAS, the passage of such legislation would not only impede medical research and teaching, but would in a large measure place the control of research and graduate teaching in the hands of government agencies to the serious determent of medical research and teaching: now therefore

BE IT RESOLVED that the Association of American Medical Colleges is opposed to such legislation as being unnecessary and not in the public interest and authorizes its representatives to oppose the passage of any such proposed legislation.

I move the adoption of this resolution. Seconded. Voted.

DR. COGGESHALL: "The final resolution relates to the need of financial assistance to medical students.

WHEREAS, recent experience indicates that the nation faces very real problems in the area of provision of sufficient physicians to meet current and future needs in the area of patient care, medical faculties and medical research, at the very time when an increased number of physicians is necessary to meet health needs, and

WHEREAS, the documented evidence is clear that one of the major factors (if not *The* major factor), involved in the problem of producing sufficient physicians to meet the nation's health needs, is the fact that, currently, personal financial need is a bar to the study of medicine in this country, therefore

BE IT RESOLVED that the Association of American Medical Colleges and its member schools and faculties do strongly affirm the need for:

A positive program for alleviating the financial problems of American medical students based on a nation-wide effort.

Such a program of financial assistance to medical students is needed:

1. To obtain more well-qualified applicants to the medical profession in the United States.

2. To eliminate personal financial need as a bar to the study of medicine in the United States.

As various agencies seek to meet this need, the A.A.M.C. feels that they should consider the following criteria of a positive program of financial assistance.

The program should:

1. Leave students free to select the school of their choice.

2. Impose no obligation on the student's post-graduate learning or practice prerogatives.

3. Be sufficient so that the student is not forced to turn to extra-curricular work to the deterrent of his study effort.

4. Be sufficient so that upon graduation from medical school the student's accumulated debt does not unreasonably hamper his further education.

5. Be available at the beginning of the first year of medical school and (providing that the student does satisfactory academic work and continues to be in financial need) continues throughout the four years of medical school.

AND BE IT FURTHER RESOLVED that the Association of American Medical Colleges and its member schools and facilities will continue to conduct research and suggest action programs in the area of medical student finances in order that medical educators in concert with our nation's citizenry can be promptly and accurately informed on these matters; and in order that wise programs to deal with these problems can be undertaken.

I move the acceptance of this report. Seconded.

After much discussion, with the offering and rejecting of ammendments, a substitute motion was proposed, seconded and carried to the effect that the Association unanimously go on record as favoring financial aid for medical students and that the Executive Council, working with the Committee on Federal Health Programs, be authorized to develop a recommendation that can be considered at the next meeting of the Institutional Membership.

PRESIDENT HUNTER: Now, I should like to call your attention to next year's meeting which will be held at the Queen Elizabeth Hotel in Montreal, November 11–15, being the dates, including the meeting of the Teaching Hospital Section, Continuing Group, the Annual Meeting of the Association.

This ends the report of the Chairman of the Executive Council. I move the acceptance of the report as a whole.

VICE PRESIDENT ANDERSON: All in favor please indicate by the usual sign. Voted.

I turn the meeting back to Dr. Hunter.

PRESIDENT HUNTER: Thank you, Dr. Anderson.

I now put the other hat on. The next item is any new business from the floor. If not, I now conclude my term as your president and I can only say that I have been deeply honored at having the opportunity to serve in this role. I shall escort your new president to the platform.

PRESIDENT HUNTER: I now present you Dr. George Aagaard, our new president.

PRESIDENT-ELECT AAGAARD: Thank you, Tom. I think the custom of escorting the president to the podium was established so that he wouldn't try to get away.

I'd like to assure the members of the association that I am honored by this burden. As some wise man once said, Burdened by this honor.

But I would like, as my first official act as president, to thank Dr. Tom Hunter for the great job which he has done in giving our association leadership during this past year. We are grateful to you, not only for the outstanding program which we have all appreciated and had the opportunity to benefit from during these days here in Miami, but also for the great amount of work and devotion that you have given to the leadership of the Executive Council over this past year.

I also wish to thank, on behalf of the association, Dr. Ward Darley and our staff for the outstanding job which they have done.

Also I thank the Doctors John Youmans and Walter Wiggins of the A.M.A. our closely related organization, for their help and guidance and comradeship.

Also our thanks to the officials of the N.I.H. and the United States Public Health Services for being so generous with their time during this meeting, and giving us their counsel and listening to our problems and our suggestions for the future.

Our thanks, too, to the foundations, the representatives of the voluntary health agencies and the industry who are also so much concerned with some of our activities and are so able in giving us their advice and assistance.

Time does not permit, nor am I prepared for any long statement of program for the coming year. I would, however, like to state that as a number one priority for the association, it would seem that we need to formulate a plan which

we, as an association, can support, a plan for meeting our country's need for physicians.

To this, I think, we must devote ourselves with all urgency and all our possible energies.

To do this, we will need the help of all of our member Deans and all of our friends.

I also hope, and incidentally, we will be trying to come up with a plan in the relatively near future, and I hope that we will be able to call a meeting of the institutional members to consider such a plan so that we can, if a plan is proposed, modify it and then come up with something which we can all strongly support.

It is my hope too, that we can work out some method for expanding participation of all the members of this association.

One thought which we have had in this connection is some modification of the framework of our meetings, perhaps, particularly this closing session, so that all of the Deans representing their several institutions can engage in more widespread discussion of some of these official problems and key opportunities which face us.

It would be our hope that we try to send out the material in advance of such meetings so that everyone can be prepared. We can focus then, on the key problems and have more effective discussions.

I don't think we have anything that we want to be secret about, but just the size of this auditorium, for instance, the number of people involved, makes significant interchange of ideas very difficult and necessarily do tend to inhibit some discussion.

I think also that we can consider possible modification of some of the chains of communication within our own organization so that the needs and the methods of meeting these needs which come up from the various committees can be handled perhaps more expeditiously.

I'd like to be sure that all of you understand that you are invited to send to me, Dr. Darley, the members of the Council, your suggestions and your key problems, your thoughts on how we as an association can be more helpful in meeting these problems of the medical schools.

Time is always limited. One is in office as president for only one year and we all, I think, agree that we are at the threshold of unusual opportunities for medical education. The possibilities make one feel really humble and I can only assure you that I will try to make up for any deficiency which I have by diligence and dedication to the work of the association in this next year.

Thank you very much.

Is there any other business that anyone wishes to bring before the association? If not, I believe we stand adjourned and will reconvene at the Teaching Institute.

(Whereupon the meeting adjourned at 12:15 o'clock p.m.)

Officers of the Association and Members of the Executive Council 1960–1961

President and Council Chairman: GEORGE N. AAGAARD
University of Washington School of Medicine (Seattle)

President-Elect: DONALD G. ANDERSON
University of Rochester School of Medicine and Dentistry

Immediate Past President: THOMAS H. HUNTER
University of Virginia School of Medicine

Vice-President: STANLEY W. OLSON....Baylor University College of Medicine

Treasurer: J. MURRAY KINSMAN.....University of Louisville School of Medicine

Secretary: RICHARD H. YOUNG.....Northwestern University Medical School

Executive Council, 1963: GEORGE T. HARRELL
University of Florida College of Medicine

Executive Council, 1963: GEORGE A. WOLF, JR.
University of Vermont College of Medicine

Executive Council, 1962: ROBERT C. BERSON.....Medical College of Alabama

Executive Council, 1962: ROBERT J. GLASER
University of Colorado School of Medicine

Executive Council, 1961: JOHN E. DEITRICK....Cornell University Medical College

Executive Council, 1961: JOHN F. SHEEHAN
Stritch School of Medicine of Loyola University

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The Journal of Medical Education:

Editor .....JOHN Z. BOWERS

MEDICAL EDUCATION FORUM

Editorials

THE OTHER SIDE OF THE COIN

The podium and press remind us with increasing notes of alarm that the quantity and quality of new doctors have reached a critically low level. We are forewarned that the medical needs of our growing population cannot possibly be met unless immediate action is taken. Recruitment of the young, increased financial support of students, more and bigger medical schools, a shortened curriculum for the general physician, and measures to relieve him of unessential chores are among the suggested solutions.

Let us not enumerate the reasons nor review the graphs and charts which have been submitted to support the alleged existence of a national emergency. Rather, and to present the other side of the coin, let us question some of the premises and submit some alternative approaches.

Projected from contemporary concepts of doctor-patient ratios, a shortage of physicians is apparent indeed. However, is there magic in the formula of 132 per 100,000? Is it possible that the profession has submitted to public demands without self-examination? By the creation of new objectives, by the development of new methods of patient care, by the extension of new forms of group effort, and by the enlistment of related health services, the optimal doctor-patient ratio of tomorrow may prove to be entirely different from that of yesterday or today.

As for suggested solutions, it is doubtful whether interest or motivation will be generated by recruitment. The young respond much better—they always have—to education, to the forthright presentation of the available evidence. Instead of perpetuating their dreams of "Arrowsmith" and "Microbe Hunters," give them the opportunity to learn of the modern scientific basis that underlies the healing art and of the multiplicity of career opportunities that rest within the framework of modern medicine.

It cannot be denied that vast sums are needed to support the learner, the teacher, and to create facilities for their interchange. Too many medical students are in serious debt; too many teachers are underpaid; hundreds of essential teaching posts remain unfilled. But dollars are not the sole answer to shortages. Just as the readily available research funds of today may stifle creativeness or give undue prestige value to laboratory productivity, so an overabundance of aid to individuals may interfere with challenge and opportunity. Financial assistance, in the long run, will attract only a few and may jeopardize quality and dedication. "Bigness"—an increase in the size of classes, if extended beyond the normal stretching point, may be akin to Starling's law of the heart.

A shortened curriculum for the practitioner, different from that of the investigator, will undo our crowning contribution to medical education and progress.

We led the world in our recognition of the relationship of the medical investigator and practitioner. We were the first to recognize that basic scientific and clinical investigation went hand in hand. Curiosity and responsibility, qualities of both the physician in the laboratory and at the bedside, were noted early to be the common characteristics of those in the medical profession. Already the leading medical schools of the nation have not two curricula but many, which provide the student with the opportunity, after basic preparation, to concentrate on what he can do best to reach his highest level. To reduce our existing plans for diversity that enriches and to substitute a misguided utilitarianism, will move the clock backward at least half a century.

Let us not delay in exploration and investigation. Let us continue to seek for the means with which to attract, maintain, and dignify those persons of promise. In the forefront, however, there should be the realization that it is we who create the magnetism of our profession. By improving our image, raising our standards, and renovating our tradition of service based on science, the problems of supply and demand may be resolved best.

We must have "patience in the present, faith in the future, and joy in the doing."

GEORGE A. PERERA, M.D.
Professor of Medicine, Assistant Dean
Columbia University College of
Physicians and Surgeons, New York

A POLL OF OUR READERS

A random sample of our readers has recently completed a questionnaire concerning acceptance of the *Journal's* present program and concomitant desirable improvements. In this, "the age of the questionnaire," we were reluctant to send out another set of questions demanding perusal and reply. Nevertheless, the present program has been in effect for 3 years, and reappraisal seemed indicated. We are, thus, grateful to our readers for their cooperation, and here is a report of their opinions.

The vast majority of the readers of the *Journal* find the original articles of greatest interest. The "Medical Education Forum" and "Abstracts from the World of Medical Education" follow in degree of preference. There was no significant sentiment that there should be additional coverage in any section of the *Journal*—we seem to be in journalistic balance!

We were impressed by the fact that "the curriculum" holds a substantial lead over other topics of interest, such as selection of students, preparation for medical education, internship, residency, and postgraduate education.

A basic question that is raised from time to time concerns the desirability of a scholarly publication versus a trade journal. There was unanimous approval of our present goal—a scholarly publication with a dignified format and emphasis on editorial content.

The major consideration is the method by which we may reach the heights of perfection to which the educators aspire. A thoughtful reader wondered why

the *Journal* was not more comparable to *The Lancet* and the *New England Journal of Medicine.*

A significant problem, of course, concerns an adequate supply of excellent, acceptable manuscripts covering the broad spectrum of medical education. We solicit a substantial percentage of the published manuscripts. A review of our records reveals that the number of manuscripts submitted without solicitation is rising rapidly—a heartening indication of interest and enthusiasm. Too often, however, the individuals from whom we solicit report that they are simply too busy to comply with our request. Unfortunately, contributions to "the literature" are not requisite for success and advancement in medical education, as in the biological and physical sciences.

Another reader has suggested greater coverage of the numerous programs concerning medical education emanating from Washington. Related to this coverage should be critical discussions of the impact of these programs by responsible medical scientists and medical educators.

We would like to think that we are under a continuing critical review by our readers. We receive letters commending the changing program of the *Journal.* Constructive criticism will be even more welcome, and the following letter is an example of the type of communication we are proud to receive and to publish.

Dr. M. J. Horowitz's letter was circulated to the members of the Editorial Board and the following comments were received:

"There is too great a willingness for us in Medicine to overlook the excellence of educational research in primary, secondary and collegiate schools. . ."

"It would be valuable if we were able to publish information regarding educational innovations in other fields. . ."

"The executive officer of the educational associations in engineering, law, dentistry, etc., could help in preparing articles describing objectives, special studies and teaching innovations in their respective fields. . ."

"Many people in Medical Education look down their noses at the professional educators (with a big "E"), but we could learn something from them. . ."

"There are interesting things going on in the world of education that the readers of the *Journal* should know about. . ."

"A section of this kind should be turned over to experts in the field in which we are interested. . ."

We are now writing to Dr. Horowitz to learn about individuals who might be contacted to contribute on developments in the world of education.

Thank you, Dr. Horowitz.

JOHN Z. BOWERS, M.D.
Editor-in-Chief

Dear Doctor Bowers:

This letter is prompted by the recent questionnaire sent to subscribers of the *Journal of Medical Education* asking for ideas about how the journal might better serve the interests of its readers. I should like to propose a new section: "Ideas from the World of Education."

Medical schools have made remarkable strides, in the last 10 years or so, in re-examining objectives and in revising curricula and methods of teaching. It is difficult to identify another profession that has studied its schools as broadly

and yet as carefully as has medicine. And, if we are to anticipate what is likely to happen in the future on the basis of what A.A.M.C. and its member schools are doing, it is a good bet that the words of Al Jolson are pertinent: "Folks, you ain't seen nothin' yet!" Large sums of money will be spent on research in medical education, and it will occupy the attention of increasing numbers of people.

These trends are understandable, for there are major problems to be solved: able students must be recruited; they must be attracted in large numbers if future needs for physicians are to be met; and, at the same time, we must know how best to educate the student once he is in medical school.

These are but a few of the current problems. Increasingly, one hears of "crises" and "ferment" in medicine and medical education. Surely, other fields of education are also in ferment and face comparable crises.

Interesting and exciting things are happening in educational circles. Teaching methods are being experimented with—witness the interest shown in self-instructional programs, automated teaching devices, films, TV, and other techniques. Schools are setting up novel programs, high school and college students are being challenged in "newer" ways, teachers are being taught differently. How well informed is the medical educator of these developments? Perhaps some of the newness of these trends will wear off and they will be regarded as no more than "fads." But they are capturing attention; and one, or possibly two, of the ideas, the methods, or the experiments being tried may be just the thing that a specific teacher of medicine may find stimulating.

Occasionally, medical educators regard their problems in teaching or in evaluating students as altogether unique. In some respects they are. Providing coverage for the rapidly expanding bodies of scientific knowledge and preparing students to assume responsibility in patient care are, perhaps, two examples of problems unique to medical education. But medical education has far more in common with other fields of education than is sometimes realized. Schools of engineering, law, and business, to cite a few, share common concerns in preparing students for professional responsibility. Colleges share with medical schools common interests in recruitment, teaching methods, evaluation and guidance. There is a striking parallel between the experimental program in "Team" teaching at an elementary school in Lexington, Massachusetts, and teaching basic sciences by subject committee in the School of Medicine at Western Reserve University. The recent revision introduced in the engineering program at MIT has an important lesson for all serious educators in medicine!

Indeed, there is much going on in the many fields of education, and at the several educational levels, that may be of great interest to the medical educator.

I would urge, therefore, that The *Journal of Medical Education* consider the establishment of a section reporting news briefs from the world of education, giving special attention to experiments, innovations, and ideas concerning those aspects of research in education believed to have significance for medical schools. Studies could be abstracted, and educators and others conducting studies could be invited to report their findings. The medical educator might even be informed about journals in which original articles on educational research are reported. From time to time the journal publishes addresses of educators and others from nonmedical fields. These are extremely refreshing and should appear more fre-

quently. How often we gain insight into problems in our own fields by listening to someone describe his!

If medical education is not to languish in parochialism, then it must be related to the mainstream of education and educational research. If the discipline of education and of its research is inadequate to meet the needs of the medical educator, then he must rise to the challenge of creating his own discipline of education and of developing a body of research to serve as appropriate models for the fields of education.

MILTON J. HOROWITZ, Ph.D.
Western Reserve University
School of Medicine

Datagrams*

RELATIONSHIP OF EXPENDITURES FROM FEDERAL FUNDS AVAILABLE FOR BASIC OPERATIONS AND FROM FUNDS DESIGNATED FOR SPONSORED RESEARCH FOR EACH OF 44 PRIVATE AND 37 PUBLIC MEDICAL SCHOOLS — 1958-59

Federal funds as sources of expenditure for U. S. medical schools have now achieved the place of first importance in their over-all financing. For the academic year 1958-59, the total expenditure from Federal funds amounted to 35% of the total expenditure from all funds.

Figures 1 and 2 on the following page, for the 44 private and 37 public four-year schools respectively, show the relationships of expenditures from Federal and non-Federal funds available for basic operations on the left side and from Federal and non-Federal funds designated for sponsored research on the right. The schools are arrayed in the order of their expenditures for basic operations. The lack of any consistent relationship between the two categories of expenditure is readily apparent.

The percentage figures at the ends of the bars indicate for each school the proportion of Federal funds involved in each category of expenditure.

As far as expenditures for sponsored research are concerned, the ratio of Federal participation to the total for all four-year schools was 65%, with a per school variation from 90 to 28%. Federal participation in expenditures for sponsored research was considerably greater in the case of the private than the public schools—an average of $1,054,000 for the former and $762,000 for the latter. For the private schools as a group, Federal participation amounted to 65%; for the public group, 66%.

As far as expenditures for basic operations are concerned, for all schools the ratio of Federal participation to the total was 17% with a per school variation of from 46 to 4%. The average expenditure from Federal funds available for general operations was greater for the private than for the public schools—$476,000 for the former and $393,000 for the latter. The percentage of Federal participation for the private schools was also higher—20% as opposed to 15%.

Federal funds available for basic operations come essentially from three sources: 1) overhead from grants for sponsored research, 2) categorical teaching grants (oncology, cardio-vascular disease and psychiatry), and 3) grants for research training. While these are all funds designated for specific purposes, they can be counted as available for general operations because their use is generally in line with the schools' basic academic purposes. Of the above three sources, funds available from research overhead vary in direct proportion to expenditures for sponsored research. Federal funds available for categorical teaching have now stabilized at between 6½ to 7 million dollars per year. Grants for research training have increased from a little over 1/2 million dollars in 1949 to almost 13 million dollars in 1958. Between 1958 and 1960 these grants increased to over 30 million dollars.

Since the overhead allowances (8%) for research training grants fall short of meeting the full cost, the time may be at hand when the impact of such grants, particularly in the high expenditure schools, may be calling for the expenditure of general operating funds disproportionate to the needs for meeting other responsibilities.

* Submitted by the Division of Operational Studies of the AAMC, Evanston, Illinois. Source of information will be furnished on request.

RELATIONSHIP OF FEDERAL FUNDS TO FUNDS AVAILABLE FOR BASIC OPERATIONS AND TO FUNDS DESIGNATED FOR SPONSORED RESEARCH FOR EACH OF 44 FOUR-YEAR PRIVATE AND 37 FOUR-YEAR PUBLIC MEDICAL SCHOOLS — 1959

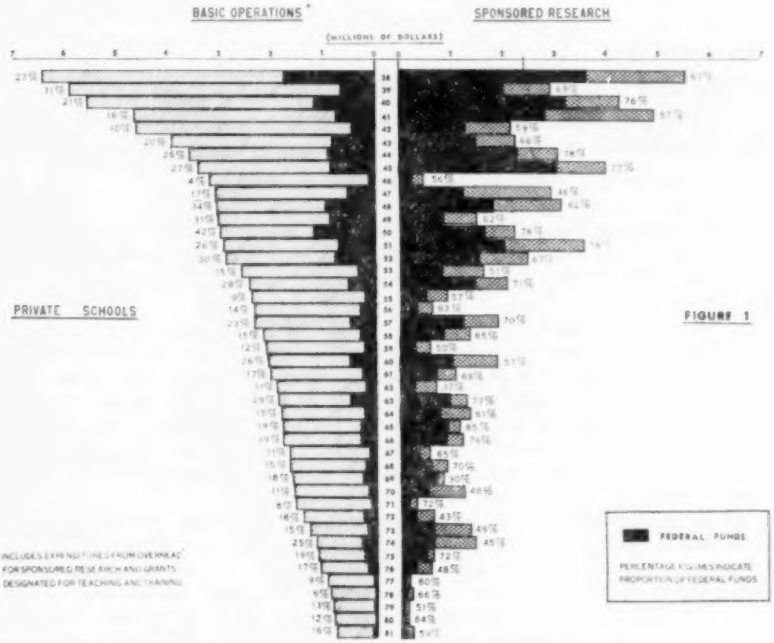

FIGURE 1

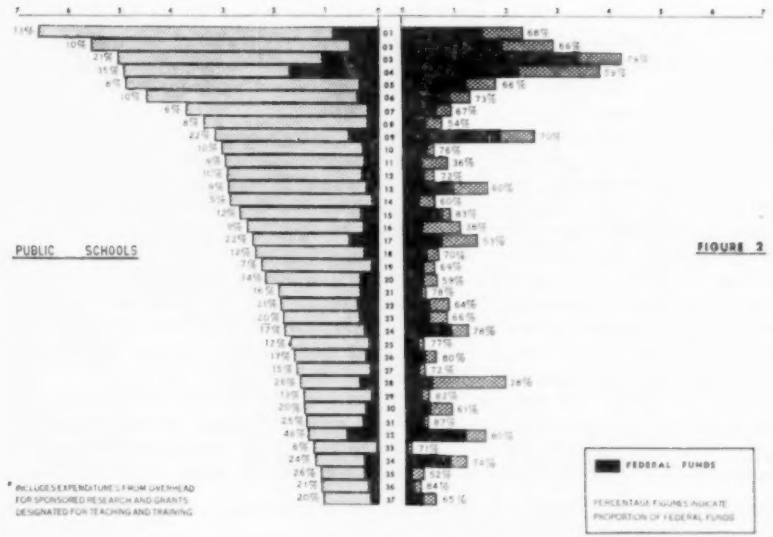

FIGURE 2

Letters to the Editor

The special staff requirements on the SS HOPE, currently in Indonesia, are many and varied. We need:

1. Staff physicians to serve—either ashore or afloat—at a modest salary for a year at a time.
2. Volunteer physicians to serve without salary for periods of up to four months.
3. A hospital administrator and department heads for the 600-bed Ibu Sukarno hospital in Jakarta. Administrators and teachers for the School of Tropical Medicine in Dacca, East Pakistan, and for the teaching missions in various other parts of the world.
4. A top-flight nursing educator.
5. Drugs and equipment of all kinds. These supplies must be donated, because Indonesia, like many other nations, is short of dollars.

The men and women who volunteer for these assignments must be, above all, flexible and ready to adapt to cultures different from ours. They must understand, for instance, that the element of time is not as important to others as it is to Americans. Most of the countries the HOPE will visit have waited for freedom for thousands of years, so they are not as concerned about hours—or even days—as we are.

Foremost in the minds of potential HOPE volunteers should be the fact that they will be, to every person they meet, a symbol of America in one of the newly developing countries of the world.

Besides being thoroughly grounded in their own specialities, the volunteers for HOPE assignments must be top-flight teachers, for they must find ways to reach daily classes where students might be composed of physicians who have received training in American and European universities and other medical workers who have received their training from village medicine men.

The work is hard; the hours are long; the pay is small or nonexistant. But from the letters we have received from our medical volunteers aboard the vessel we know that, above all, the intrinsic rewards are great. I am enclosing one of these letters which is the most eloquent and moving description of life aboard the HOPE that I have seen.

Sincerely,
WILLIAM B. WALSH, M.D.
President

For the first time in two weeks, I can sit down and collect my thoughts. We are on our way to Surabaja, with two hectic weeks of "baptism under fire" or, more politely, our first shakedown, where we went through the throes of making this big, white gleaming ship, filled with supplies, equipment, and talent into a dynamic, functioning hospital. It wasn't easy, and there were many problems which would have staggered a less hardy and dedicated group of people. Not only were there the usual problems of opening a hospital (a floating hospital at that), but there were the problems of getting to work with a new

group of Indonesian personnel and patients with the usual language. It's a tribute to the basic friendliness and mutual zeal of all concerned that we weathered this initial confusion as well as we did. And there is no doubt that, now that we have proved that this can work, we shall soon improve our situation to becoming one of the best hospitals in this part of the world, with the advantage of being mobile.

I myself was concerned primarily with the general admission of patients, and particularly with the care of those with Ob-Gyn diseases. From this vantage I was able to observe small, but very poignant aspects of Indonesian life,—health problems both for the people and for the medical profession here. I cannot even begin to list my impressions so far. Some of them are still being formed. Rather than details at this time, I think it's best to just mention that the *number of contrasts* between America and Indonesia, and among Indonesians themselves, are the most startling. I could not help but reflect on how fortunate Americans are and how we take so much for granted, not realizing all the blood, effort, and sweat that went into making our high standard of living. And, that these people, too, are going through crises and problems similar to those our forefathers went through. Here are the real present-day pioneers.

Our welcome was indeed most cordial, not only by the officials and our Indonesian colleagues, but by people everywhere we went. Our reputation had preceded us, and their expectations and trust were almost embarrassing and challenging. So many people needed help! So many people wanted desperately to come aboard this "miracle" ship to be cured; and no one was more disappointed than I that we could not accomodate them all. In fact, we hardly had our gangway down before we had our first Indonesian patient, a stevadore who had fallen off a platform on the dock breaking his arm and suffering multiple lacerations and contusions, and in shock. They brought him aboard; we set his arm and patched him up. A few days later, the real procession of the patients began. Filing slowly through, or being borne in stretchers or wheel chairs, came the line of pathetic sick people, young and old, stoic, and amazingly uncomplaining in spite of the many advanced disease stages. Then with the usual qualms and trepidation that accompany momentous beginnings, we saw our plans and aspirations swinging into gear as all the myriad departments that make up a hospital started to function. To me this was very significant, and most meaningful.

I won't go into the deficiencies of the medical system here, lest it detract from the great credit our colleagues deserve for labouring under difficult handicaps and for the considerable progress they *have made* since winning independence, and which is being continually improved. That they are not able to do many things here which we consider commonplace is not due to a lack of knowledge or training about such things. In fact, they impressed me as being quite enlightened about advances in medicine, and many have had fine postgraduate training in the United States or Europe. Their tremendous workload and limited amounts of medications, equipment, and other practical problems make certain compromises necessary. I have come to know a few personally, and they are most gracious and most eager to learn. One in particular, a Dr. Sjaifoellah Noer, who is in my age group, is my roomate, and this association I find mutually rewarding not only professionally and in terms of companionship, but also because we both learn from each other in our many discussions of our respective problems.

Finally, I can say that it will be a while before we can evaluate the full impression and usefulness of our work with these people. But, I have the feeling that in many small ways it will be good.

ARNOLD J. SMOLLER, M.D.

Courses in comprehensive medicine have proliferated during the past several years, but published accounts of how students evaluate such courses remains relatively rare. The report by Niebuhr, Steiger, and Hoffman entitled, "Comprehensive Medicine and Medical Student Attitudes" (*J. M. Educ.*, 35:1154-62, 1960), therefore deserves careful attention.

It is encouraging to learn from this report that student attitudes toward the Comprehensive Medicine Program at Temple University School of Medicine were largely positive. We should like to point out, however, that the authors give insufficient emphasis to a serious methodological limitation in their study that significantly qualifies the conclusions advanced.

The students whose opinions form the basis for the report comprised only about two-fifths (42 per cent) of one senior class and about two-thirds (68 per cent) of another. These two groups of respondents are referred to as samples, although no evidence is offered to suggest that those who responded were representative of their classes. Indeed, the authors are careful to state initially that their ". . . results do not reflect the attitudes of the entire class" (p. 1155). The important question which the authors neither raise nor answer concerns the matter of exactly whose attitudes the results *do* reflect.

Conceivably, the rather large proportions of students in both classes who failed to register their opinions by not returning questionnaires included many who were indifferent or unfavorably disposed toward comprehensive medicine. Correlatively, those who responded might include a disproportionately large number of students who held favorable attitudes. These are extreme speculations, of course. However, they may serve to illustrate the possibilities one is forced to consider in the absence of information to the contrary. They also underline the need for caution in reporting and interpreting data obtained from self-selected respondents. Generalizations based on such data require constant qualification lest they be taken to represent the opinions of the entire class. And it is hardly appropriate to compare such data with the findings reported by investigators—e.g., Hammond and Kern—whose studies entailed full coverage of each class surveyed.

GEORGE G. READER, M.D.
Professor of Medicine
MARY E. W. GOSS, Ph.D.
Research Associate in Sociology

The concentrated schedule precipitated by activities related to the holiday season have delayed a report on the inauguration of the Indian Association for the Advancement of Medical Education, which took place in Hyderabad on December 4, 1960.

A Committee of Deans met in Delhi on November 6, 1960, to draw up a Constitution and by-laws for this Association. We met in the Maulana Azad Medical College and studied a draft which had been circulated sometime prior to this

session. There was basic unanimity on the part of the members of this Committee as to the purpose of the Association, and in view of this the session moved along smoothly and formulated a sound constitution. This in turn was circulated to all the Deans of Medical Colleges with the announcement of a meeting in Hyderabad, in conjunction with the annual conference of the Indian Council for Medical Research, for the approval of the constitution and the inauguration of the Association.

On December 4, 1960, in Hyderabad at 9.00 A.M. we met and ratified the constitution and by-laws with only one or two minor changes. I shall not reproduce this document other than to submit the Objectives and Programme which are as follows:

OBJECTIVES

The broad objectives of the Association are the improvement and advancement of Medical Education:

(*a*) by developing increasingly effective means of selecting the most suitable students for the study of medicine; (*b*) by encouraging experimentation in curriculum development; (*c*) by supporting experimentation, studies and programmes aimed at improving the ability of students to learn and teachers to teach; (*d*) by supporting efforts to improve the educational experience of interns, house officers, and postgraduates; (*e*) by supporting effort to improve and broaden the influence of continuing medical education such as by refresher and orientation courses; (*f*) by developing the knowledge and leadership necessary to provide for long-range progress and stability of medical education; (*g*) by creating and maintaining effective avenues of communication between medical education and others; (*h*) by doing such other things as will promote the interests of medical education.

PROGRAMME

For the achievement of the objectives stated above, the following programmes may be developed:

(*a*) The gathering, collation and analysis of information about medical education; (*b*) the encouragement of regional meetings; (*c*) the holding of an annual meeting at which all those interested in medical education get together to exchange views; (*d*) cooperation with voluntary and governmental agencies that are engaged in programmes pertaining to medical education; (*e*) the publication of the *Indian Journal of Medical Education* and other material on medical education; (*f*) any other programme which may be decided on from time to time for the advancement of medical education.

Dr. L. Mudalier, Vice-Chancellor, Madras University, was elected our first president. The formal inaugural address was given by Mr. D. P. Karmarkar, the Union Health Minister. Following this, Dr. Mudalier presented his presidential address, which was an erudite analysis of the past and present in medical education with a challenge for the future. The joint secretary is Dr. Lakshminarayana, whose address is: Medical College, Warangal, Andhra Pradesh.

At the inauguration, among others, I was asked to say a few words, and this gave me an opportunity to include the following:

It gives me great personal pleasure to read a message, dated November 18, 1960, and addressed through me for conveyance to this Conference:

"The Executive Council of the Association of American Medical Colleges sends warm congratulations and hearty best wishes to the Indian Association for the

Advancement of Medical Association upon this very important occasion." Signed: Ward Darley, M.D., Executive Director.

Thus for the first time in India, there now exists an organization of medical educators. The beginnings were auspicious and I hope that the future will see this Association grow to fulfill her objectives in a really significant manner.

MELVIN A. CASBERG, M.D.
Director and Principal
Christian Medical College
Ludhiana, Punjab, India

December 14, 1960

Dr. Ernest Allen
National Institutes of Health
Bethesda, Maryland

Dear Doctor Allen:

Repeatedly I hear expressions of concern from medical educators about what one might call "inbreeding" on study groups and councils of the National Institutes of Health. I have no idea if this is the case, but I do note that some medical educators seem to be affiliated with N. I. H. councils or study groups for a number of years. Would you be willing to let us have for publication any information that may be vital to this problem? Specifically, what is the term of appointment on a council and on a study group? Is it possible for a person to terminate his tenure on one of these councils and move to another? How frequently does this happen? Also, how frequently is an individual returned to a council or study group after a year or two of absence?

I hope that you will clearly understand that I am not fishing for trouble, but I believe that it would be helpful to settle a problem which concerns a number of our readers.

Yours sincerely,
JOHN Z. BOWERS, M.D.
Editor-in-Chief

January 13, 1961

Dear Dr. Bowers:

We have been concerned too about some of the questions you raised in your letter of December 14, 1960. For this reason, we decided in 1959 to re-examine our procedure governing reappointments of Committee and Advisory Council members.

A study of the service to NIH of 1057 non-Federal consultants who had served in the period from 1947 to 1959 yielded the following breakdown:

701 consultants served only one term.

104 Study Section members were appointed to Committees other than Councils and Study Sections subsequent to serving on a Study Section. The great majority of these were appointed to Committees concerned with research training. Obviously the best prepared people to advise on these new programs were the scientists who had experience in the corollary research grant program.

99 scientists, having complete service on one Study Section, were asked to serve again on another Study Section with closely related interest. While such service was usually requested after varying periods of nonservice, a few were transfered directly

to other Study Sections because of the need for experienced consultants in the establishing of new Sections.

68 Study Section members, subsequent to service on the Study Section, were appointed to National Advisory Councils. It is most helpful in the deliberations of the Councils to have some members who have had prior Study Section experience.

45 Study Section members were reappointed to their same Study Section because of unique competencies.

22 Council members, after completion of a term on one Council, were appointed to serve on still another Council because of their special knowledge and experience in the fields concerned.

10 Council members, subsequent to Council appointment, were appointed to serve on Study Sections because of special need.

8 Council members were later reappointed to the same Council because of their unusual experience in the field.

In appointing our Advisory Councils and Committees, special attention is given to geographic spread. Furthermore, we are of the firm conviction that we should not appoint simultaneously two people to the same Committee from the same institution. In our concern referring to geographical spread, however, we have been completely unwilling to sacrifice competency of scientific review and have therefore yielded occasionally on geographic distribution in order to provide the competence required.

In view of our findings we decided in early 1960 to avoid wherever possible reappointment of former members. We are thus taking advantage of the statutory rotation provision in order to make Council and Committee memberships as representative as possible of the many professional and lay groups whose advice can be used for the benefit of our programs. While the statute provides that a Council member may be reappointed to the same Council after a 1-year lapse in service, we propose not to reappoint a Council member to any Council for at least 2 years and then only in unusual cases. Similarly, we propose not to have an individual serve simultaneously on more than one Committee that reviews applications for grants.

I believe that this statement will be reassuring to you.

Sincerely yours,
ERNEST M. ALLEN, SC.D.
Associate Director for
Research Grants
National Institutes of Health

I read with great interest the articles on "Selling Drugs by 'Educating' Physicians" and "The Pharmaceutical Industry," that appeared in the January issue of *The Journal of Medical Education*. I am familiar with the problems discussed, since I was chairman of the Council on Dental Therapeutics of the American Dental Association for the past 6 years and have served on this Council for an additional 5 years. I thought your readers might be interested in how therapeutic agents are evaluated for the dental profession.

The Council on Dental Therapeutics of the American Dental Association may classify products according to established procedures that are submitted to it by pharmaceutical manufacturers, or the Council may evaluate and classify a product that has not been submitted by the manufacturer but which is being actively promoted to the dental profession.

The Council on Dental Therapeutics classifies therapeutic products and devices into four categories and acquaints the dental profession of their actions through the *Journal of the American Dental Association.* Group A consists of accepted products which will be listed in *Accepted Dental Remedies* (published yearly) and may use the Seal of Acceptance, unless otherwise provided. Group B consists of products which lack sufficient evidence to justify present acceptance, but for which there is reasonable evidence of usefulness and safety. These products meet the other qualifications and standards established by the Council on Dental Therapeutics. Group B products may be promoted for special use and study. It is the policy of the Council to reconsider Group B products each year on the basis of new evidence which may be produced in their support.

Group C consists of products for which the evidence is so limited or inconclusive that the products cannot be accurately evaluated. Group D consists of products which are unacceptable because of their demonstrated inability to meet the standards outlined in the provisions for acceptance.

In the deliberations of the Council, data submitted by the pharmaceutical manufacturer, independent research studies, and, at times, research studies sponsored by the Council, are evaluated. In addition, careful scrutiny is given to the promotional material and advertising claims to ascertain that the claims are in keeping with the established facts.

The actions of the Council carry great weight, since only therapeutic agents in Group A or B may be advertised in any of the journals published by the American Dental Association. Furthermore, only Group A or Group B products may be displayed at the national meetings of the American Dental Association, or at state or component society meetings that follow this policy. It can be readily appreciated that every effort is made by the pharmaceutical manufacturer to restrict their promotion of drugs to the dental profession to those whose safety and therapeutic effectiveness have been established. Likewise, the pharmaceutical manufacturers carefully weigh their promotional material and advertising claims, since these represent considerations for favorable classification.

While the policy of the Council of Dental Therapeutics may somewhat limit the advertising revenue to the official journals published by the American Dental Association, and while the actions of this Council are not always enthusiastically received by the pharmaceutical manufacturers, it is the Council's belief that it is the responsibility of the profession to make objective evaluation of therapeutic agents promoted to the practitioner. More important, this objective evaluation is believed to be in the best public interest.

For almost 30 years, the Council on Dental Therapeutics has furnished guidance to the practicing dentist in matters pertaining to clinical therapeutics. It is held in high respect by the Food and Drug Administration and by the dental profession. By its indirect influence on advertising, it has prevented the flamboyant promotional material which constitutes such an objectionable feature of the *J.A.M.A.* Furthermore, the members of the Dental profession have not found it necessary to subscribe to any Medical Letter to obtain objective evaluation of new therapeutic agents.

LESTER W. BURKET, D.D.S., M.D., Dean
University of Pennsylvania
School of Dentistry

Communication

WILLIAM S. STONE, M.D.*

The University of Maryland, School of Medicine, has recently experienced some problems in regard to candidates receiving the M.D. Degree being recognized by hooding at Commencement exercises. Ultimately, this led to a questionnaire to obtain information on the question of hooding of M.D. candidates at Commencement by other universities.

The results of this survey may be of interest to all Medical Schools, and follow below.

PRESENT POLICY IN REGARD TO HOODING OF MEDICAL SCHOOL GRADUATES AT COMMENCEMENT AS A RESULT OF SURVEY, JANUARY, 1961

MEDICAL SCHOOL	NO HOODING	WEAR HOOD INTO CEREMONY	HOODED IN CEREMONY General	HOODED IN CEREMONY Separate
Albany Medical College			x	
University of Arkansas				x
Baylor University			x	
Boston University		x		
University of Buffalo		x		
University of California		x		
University of Chicago	x			
University of Cincinnati			x	
University of Colorado		x		
Columbia University	x			
Creighton University	x			
Duke University		x		
Albert Einstein College of Medicine (Yeshiva Univ.)			x	
Emory University		x		
Georgetown University			x	
Med. Coll. of Georgia			x	
Bowman Gray, School of Med. (Wake Forest)			x	
Hahnemann Medical Coll.			x	
Johns Hopkins University		x		
Howard University			x	
University of Illinois		x		
Indiana University		x		
State Univ. of Iowa		x		
Jefferson Med. Coll. (Philadelphia)			x	
University of Kansas		x		
Louisiana St. University	x			
University of Louisville		x		
Marquette University			x	
Meharry Med. College		x		
University of Miami			x	
University of Michigan		x		
J. Hillis Miller Health Center (Univ. of Florida)			x	
University of Mississippi				x
University of Missouri		x		
University of Nebraska				x
New York Med. College			x	

* Dean, University of Maryland School of Medicine.

State Univ. of New York, Downstate Med. Center				x
State Univ. of New York, Upstate Med. Center		x		
New York University		x		
University of N. Carolina		x		
Northwestern University		x		
Ohio State University		x		
University of Oklahoma			x	
University of Oregon			x	
University of Pittsburgh		x		
University of Rochester	x			
Saint Louis University			x	
Seton Hall Coll. of Med.			x	
Med. Coll. of S. Carolina		x		
Univ. of Southern Calif.		x		
Stanford University			x	
Stritch School of Medicine (Loyola University)		x		
Temple University		x		
University of Tennessee			x	
University of Texas		x		
University of Texas Southwestern Med. School		x		
Tufts University	x			
Tulane University		x		
University of Utah			x	
University of Vermont			x	
University of Virginia	x			
Medical College of Virginia	x			
Washington University		x		
George Washington Univ.		x		
Univ. of Washington		x		
Wayne State Univ.	x			
Western Reserve Univ.			x	
University of Wisconsin		x		
Woman's Med. Coll. of Pennsylvania			x	
Yale University		x		
Total	9	33	24	4

Address*

K. N. Rao†

On behalf of the Reception Committee, I consider it a great privilage to welcome you all on the occasion of the inauguration of the Indian Association for Advancement of Medical Education, by our Union Health Minister, Shri D. P. Karmarkar. We are very happy that Brig. B. L. Taneja, the Convenor of the Committee, appointed by the Deans and Principals of Medical Colleges which met in Delhi in November, 1960, has accepted our invitation to hold the first meeting of the Association at Hyderabad in conjunction with the Annual meetings of the Association of Pathologists, Pharmacologists, Physiologists, and the Annual meetings of the Advisory Committees of the Indian Council of Medical Research. That Hyderabad should have been chosen for its inaugural meeting is indeed providential and fortunate for us. Our Union Health Minister who has kindly accepted our invitation at very short notice to inaugurate this Association has served our cause already. His great interest in the progress of Health programmes in our country is well known. The appointment of the Health Survey and Planning Committee and the Post-Graduate Medical Education Assessment Committee, for evaluating the present programmes and planning the future course of action for the organization of health care of the people and medical education in our country, are significant contributions to the dawn of a Welfare State in our country. Recently, I had the privilege to witness his masterly approach to convince and get the approval of the Central Council of Health for the early establishment of an All-India Academy of Medical Sciences, to get all the specialised bodies and Professional Associations and to encourage specialists of eminence, to come under one forum for the advancement of Medical Science, is unforgettable. We are indeed grateful to him for all that he has done. We are grateful to Dr. A. L. Mudaliar, for accepting the invitation of the Committee, to be the first President of the Indian Association for Advancement of Medical Education. The choice of Dr. A. L. Mudaliar, Vice-Chancellor of Madras University, the Chairman of the Health Survey and Planning Committee, our roving global Medical Ambassador, and who is one of the most distinguished Citizens in the Medical World, is most appropriate. His services to the cause of education in general, and to medical education in particular, need not be recounted to this audience. At the Second World Medical Education Conference held in Chicago, his valedictory address is one of the most profound orations the medical educationists have heard at that session.

I also take the opportunity of welcoming the representatives of the International Organisations, like the Rockefeller Foundation, Association of American Medical Colleges, and the T. C. M. of the United States, and other distinguished foreign medical educationists.

I do not want to describe the history of this ancient City of Hyderabad which is the capitol of Andhra Pradesh and the recent developments in the field of Medical Education, under-graduate and post-graduate, and developments in Public

*On the occasion of the inauguration of The Indian Association for Advancement of Medical Education. By Shri D. P. Karmarkar, Union Minister for Health, on December 4, 1960, at the Jubilee Hall, Public Gardens, Hyderabad-Deccan, Andhra Pradesh, India.

†Director of Medical Services, Andhra Pradesh; and Chairman, Reception Committee.

health in this State, as much of the information is available. Therefore, I would like to take this opportunity to survey our great heritage in the field of education in the world and the decadence we had come to in the course of history, and our attempts at revival after Independence.

In the history of mankind, India could proudly trace good public health practices and health services to 3,000 B.C. Excavations at Mahenjadaro and Harappa show the Indus Valley civilisation with relics of planned cities with system of drainage indicating the high degree of environmental sanitation reached in those times. The same excellent sanitation is again found at the Nagarjunasagar Konda excavations in Andhra Pradesh. In the Vedic period, the Ayurvedic system of medicine was extensively practiced, and a comprehensive concept of health and science of life was enunciated. Medical Education was introduced in Taxila and Nalanda Universities leading to the title of Pranacharya and Pranavishara. Restrictions were imposed over the practice of quacks. Medical Oath, binding the student with rules of personal hygiene, prevention of transmission of infection and contamination to others, and moral behaviour and obligations to the teacher and patients of both sexes, was enforced. Hospital system was developed in Indian during the reign of Rahula Sankirtayana (son of Buddha) for men, women, and animals—which was perpetuated and expanded by King Asoka in later years, throughout his Kingdom and abroad, the relics of which are still found in Ceylon and India. With the changed political conditions, Indian medical education and medical services remained static, and later the ancient universities vanished and the hospitals disappeared, to our shame. With the Moghul conquest, Unani, or Greek medicine, was introduced in India. With the advent of the East India Company, Western medicine came to India, and the Public Health movement was introduced. The first Medical School in India was established in 1882. Medical Colleges were started at Calcutta, Bombay, Madras, in 1835, and were recognised by the Royal Colleges of England since 1843. In the past 100 years, medical education developed under the general supervision of the General Medical Council of United Kingdom till 1933 when the Indian Medical Council was established. The university degrees were registered in the Register of the General Medical Council which implied that the standard of medical education had reached the minimum level obtained in Great Britain during that period.

The Medical Council of India was constituted in 1933 with similar functions as the General Medical Council, with the exception that the Provincial Councils maintained Registers and took up disciplinary work. Its twofold responsibility was to maintain uniform minimum standards of university medical qualifications in India, and to further the recognition of these qualifications outside the country. The new Act of 1956 has provided for the inclusion of Membership of the Council to the Licentiates, the formation of an All-India Register, and the inclusion of post-graduate medical education under the purview of the Medical Council of India. Much has been done by the Medical Council since Independence, but there is much more to be done.

The problems of medical manpower, the optimum number of medical colleges the country could afford, the training of various types of health personnel for the needs of the country, the medium of instruction, experiments in medical education, curriculum reforms, and postgraduate medical education, remains yet to be done in the field of medicine.

World Medical Education Conferences.—The World Medical Education Conferences were organised under the auspices of the World Medical Association with the collaboration of the World Health Organisation, the Council for International Organisation of Medical Sciences, and International Association of the Universities. The first Conference was held in London from August 24-29, 1953, which discussed the subjects of undergraduate medical education, the requirements of entry into medical schools, aims and content of medical curriculum, techniques and methods in medical education, and the place of social and preventive medicine. Our distinguished President was one of the Vice-Presidents and Chairman of "Aims and Contents of Medical Curriculum" Committee at that Conference.

At the Second World Medical Education Conference held in Chicago the theme was "Medicine—a life-long study," and essentially the conference dealt with postgraduate medical education, which was considered under the following heads:—

(1) Basic clinical training for all doctors;
(2) Advanced clinical training for general and specialist practice;
(3) Training for teaching and research;
(4) Continuation medical education.

Many Indian educationists contributed to the deliberations of this Conference, notably Dr. A. L. Mudaliar and Dr. Khanolkar.

At this Second World Medical Education Conference, held in Chicago, it has been suggested that every country should have its own association for the study of medical education. In the United States of America, the Association of Medical Colleges, which was started in 1876, functioned for the whole of North America. In Canada, there is an Association of Medical Colleges which functions for the same purpose. In the United Kingdom an Association for the Study of Medical Education was founded in 1957, and the first Conference was held on September 25-26, 1958, and the subject of discussion was "Experiment in Medical Education."

The aims and objects of the Association are:

(1) To exchange information about medical education;
(2) To organise meetings on topics concerning medical education;
(3) To maintain a Bureau where information about medical education can be received, stored, and made available;
(4) To encourage and conduct research into matters concerning medical education.

It may be noted that in Great Britain there are universities, medical corporations, like Royal College of Surgeons & Physicians and the General Medical Council, and still a need was felt for such an organisation, as there never existed previously in Great Britain any organisation capable of fulfilling the above aims or of bringing together and to solve the problems in the educational field, the varied views of the universities, Royal Colleges which represent the professional practice and other interested bodies, such as Ministry of Health and General Medical Council. They have corporate as well as individual membership. The Association had the support of the Rockefeller Foundation and many other foundations in the United States and in Great Britain.

Developments in India.—At the Medical Education Conference held in New

Delhi in 1955, under the auspices of the government of India, it was suggested that an Association of Indian Medical Colleges be formed; but, unfortunately, it could not be carried through. Since then, medical education conferences were being held under the auspices of the Ministry of Health sporadically. There is no common ground from which to progress and to make people think in terms of evolving a type of medical education which is suitable to our country, and also to contribute to the progress of medical education in the international field.

The Andhra Pradesh Medical Education Conference was convened in 1957 and, since then, the government of Andhra Pradesh has approved the functioning of the Council on Medical Education, consisting of the Principals of Medical Colleges, Superintendents of Teaching Hospitals, and other Medical Educationists in the State of Coopted Members, which meets every six months under the chairmanship of Director of Medical Services. This council held 7 meetings so far and has suggested many reforms in medical education, some of them have been implemented.

Therefore, to be in consonance with the trends in the world medical education, it was felt imperative that an Association for the Advancement of Medical Education should be started as a voluntary body for the progress of Medical Education in our country. Dr. Lakshminarayana, who has made a distinct contribution by his publication "A Report on Medical Education in India, 1959" was chosen as the Organising Secretary.

Problems of Medical Education.—I may be permitted to crave your indulgence to highlight some of our immediate problems.

1. Medical Manpower: In India, the population by 1961 is expected to be 431 million and the number of doctors in the country are expected to be 82,500, giving a doctor-population ratio of 1:5224. During the second plan period, which is ending by March 31, 1961, there will be an over-all shortage of 7,500 doctors. By 1976, the population is expected to be 568 million. The rate of doctors is taken as 3 per cent, which roughly comes to about 2,400 per annum making, in the next 15 years, about 37,015 doctors retiring and leaving a balance of about 45,485. The annual number of admissions to the 57 medical colleges is roughly about 4,700, including the recent increase in admissions. As many of these Colleges were established during the last 3-4 years, it is only from 1963 onward that fully trained doctors will be available. Even assuming that about 4,000 doctors would be passing out of our medical colleges from 1963, the total number of new additions by 1976 would be about 60,000, making a total of 105,200. This would give a doctor-population ratio of 1:5200, the same as we have at present if no further medical colleges are started in the country during this period. As the students who are admitted into medical colleges would not pass out till after 5-6 years, we have to keep in mind that new Colleges, started in the Third Five-Year Plan, will only be able to bring out doctors in the 4th Plan. In addition, it is necessary to bear in mind the three major phenomena which combine to create the need for physicians in our country: (*a*) the rapid growth of population; (*b*) increase in the individual use of medical services due to better health organisation, greater awareness and the introduction of Employees State Insurance and Industrial Health services; (*c*) increase in the number of physicians required for specialist services, such as, research and teaching.

Therefore, with all these expanding needs, of the Society and the increase of National income, it is imperative that the number of doctors in the country should

increase along with our expanding economy. With all the social progress of our country, if we are not able to reduce the doctor-population ratio by 1975 to 1:3000, and have a proper distribution of doctors to the rural and urban areas, all our planning would be considered imperfect as lacking in perspective. If we desire to bring the ratio of doctor-population to 1:3000 we would be requiring another additional 85,000 doctors to be produced in the next 15 years, that is, there should be additional 5,600 annual admissions from now on. How this could be brought about is a matter for the Medical Educationists to decide. Increase of admissions to the existing Medical Colleges and starting of new Colleges will have to be considered. There is a suggestion from some States and the Planning Commission for the revival of Licentiates' course. This suggestion, however, is considered by all well-wishers of medical education, as a retrograde step. The manner in which great countries like Russia and China have approached and are approaching, this problem may, perhaps, be taken into consideration, and some decisions have to be taken with regard to introduction of Auxiliary Health Workers or feldshers in this country. It may be noted that there are about 1-2 lakhs of indigenous medical practitioners following miscellaneous systems of medicine, and if they are taken into consideration, possibly the doctor-population ratio may appreciably improve statistically. If we take seriously the Aristotelian dictum that a man is either a physician or a fool at the age of 40, there should be no further need for extra doctors in our country. But, as this is not to be, we have to devise ways and means how to approach this problem of acute deficiency of medical personnel in our country; and the medical educationists, cannot divest themselves of the responsibility for meeting the needs of the Nation.

2. *Student Problems.*—Premedical education requires our immediate consideration. In view of the formation of linguistic States, and the use of medium of instruction up to higher secondary in their mother-tongue, the student's knowledge of English has deteriorated. If scientific education is to be imparted to our students, it would be very essential at this stage of our social evolution, in the interests of the unity of the country, that English should continue to be the medium of instruction in scientific subjects at the school as well as the university level. We are indeed grateful to the Vice-Chancellors of the Southern universities under the leadership of Dr. A. L. Mudaliar, our distinguished President, for emphasising the importance of English.

As equality of opportunity is one of the basic principles of our constitution, there is the need for making medical education available to the rich and the poor alike, and the question of advancing loans and granting scholarships to suitable candidates has to be taken up, if we really want to strive for the advancement of medical education. In view of the high cost of medical education, it becomes practically impossible for the students of no means to enter the portals of medical colleges, and, thus, we are losing many suitable students. The Andhra Pradesh government has taken the lead and set apart yearly 1 lakh of rupees to be given as loans to the students in the medical colleges who have not the means to pursue their studies. This is a matter again for the Association to consider whether there is a necessity to have a Medical Education Foundation for the entire country, to help the needy students.

The encouragement of student research, and the creation of incentives among students for research, is another important matter for consideration.

The question of publishing International text-books in India to reduce the cost of books and also the publication of text books in various subjects by Indian authors, is a matter for immediate consideration.

3. *Teachers' Problems.*—The problem of shortage of teachers has been recognised, and recent estimates have shown that nearly 2,000 to 2,500 teachers are deficient in the existing medical colleges. It is necessary for us to consider why this is so. It is obvious that the teaching posts are not attractive, and, therefore, with our over-all shortage of doctors, there is a trend toward going into general practice. Though the shortage of teachers is not felt in the field of clinical sciences in view of the practice attached, in the basic medical sciences the position is acute. Though salaries of doctors in services are low, when compared to similar services in other branches, the lot of teachers in the nonclinical departments is acute, and it is regrettable that they are not receiving the sympathy and consideration which they deserve. The Medical Education Conference, the Medical Council of India, and other similar organisations have repeatedly recommended higher scales of salaries, but it has not been possible to implement the recommendations in many States. Unless something is done, it would not be possible to have the requisite number of teachers to train our future doctors so that the nation's needs can be met. Therefore, it is most imperative that this Association for the Advancement of Medical Education takes up this important question of salaries of teachers, and establishment of non-practicing units, as one of the fundamental needs for further advancement of medical education.

Opportunities for research for medical teachers in medical colleges are, at present, meager, and research funds are required, and means have to be found for obtaining modern equipment for our Research Institutes so that our medical research would not be in any way handicapped. With the assistance of the government of India, through the Indian Council of Medical Research, the Council of Scientific and Industrial Research, and with the assistance offered by the National Health Institute of United States of America and the World Health Organisation Research Fund, it should be possible for our research workers to prove their worth and contribute to the progress of medical Science.

Curriculum.—In the curriculum reforms it is necessary that a decision be taken or at least an experiment conducted to evaluate whether the integration of pre-professional subjects with the medical course is better than the pre-professional courses of studies being conducted in the science colleges as at present.

The main curriculum of non-clinical subjects, viz: Anatomy, Physiology, Biochemistry, Pathology, Bacteriology and Pharmacology, require re-arrangement. For our Indian students, it appears to be necessary to consider the extension of 4½ years course to 5 years and to keep Anatomy, Physiology, Biochemistry, statistics and Psychology for 18 months' study; Pathology, Bacteriology, Pharmacology, and introduction to clinical medicine for a period of 1 year; and the next 2½ years for clinical studies uninterrupted by any examination in para-clinical subjects. It is also for consideration whether there is need for forensic medicine to be taught in the medical colleges other than under Pathology. If however, it is required as an essential requirement for entering into government service, whether it may be put as a subject for examination for those who intend

entering government service, at the House Surgeon stage, may have to be taken up.

Abolition of internship.—There is also another question for consideration, i.e., the abolition of the internship and in its place the introduction of Resident House Surgery for 1 year which would serve the same purpose, but at the same time shorten the period of training.

Postgraduate medical education in our country has been realised by all as inadequate. Our young doctors continue to go to foreign countries, particularly to United Kingdom and the United States of America, as sufficient opportunities are not available in this country. The few universities and medical colleges that offer postgraduate courses at university level, do not give opportunity for every aspirant to postgraduate qualifications as is done in the United Kingdom. The question for consideration is whether we could have some sort of national examinations for all the candidates under the aegis of the Inter-University Board or the Postgraduate Medical Education Council or the future All-India Academy of Medical Sciences. It may also be stated that there is, at present, no uniform standard in the postgraduate qualifications in our universities, and this also contributes toward the general discontent among the young medical graduates.

Association for the Advancement of Medical Education.—As stated above, the universities, the Faculties of Medical Colleges, the Administrators, the Central and State Governments and Voluntary Agencies, are all concerned with medical education. It is necessary that they be educated to recognise the role that each can play in the support of the development of medical education. This naturally implies the development and the availability of information about medical education and the opportunity through discussion and questioning and to understand its meaning, by this association. It is stated that there are 4 over-all principles that have to be realised in this connection:

1. As the Association can exercise no authority over any college or agency or individual, any actual developments in medical education it might encourage must depend upon the educational process.

2. If the educational process is to apply, the success will largely depend upon gathering and the development of information and ideas, and upon their dissemination, discussion and understanding.

3. There should be awareness of the study and the information-gathering programmes of other agencies in the world, so that there could be cooperation and mutual assistance.

4. This Association should only undertake projects which the medical Colleges and educationists could work jointly.

It is necessary, therefore, that several Committees should function under its auspices besides the Executive Committee, and they may be as follows:—

1. Committee for Operational studies of Medical Colleges;
2. Committee on Research and Education;
3. Committee on International Relations in Medical Education to work for association of our Medical Centres with others abroad;
4. Committee on Postgraduate Medical Education including Internship, Residencies, continuation education etc.,
5. Committee on Teaching hospitals and their organisation;
6. Committee on financing of Medical Education.

Communications from N. I. H.

THE MEDICAL SCHOOLS AND N.I.H.: A CHANGING PATTERN

JAMES A. SHANNON, M.D.*

N.I.H. expenditure on medical research (excluding research training) has grown by more than a third in each of the last 2 years, and is now over 5 times greater than it was only 5 years ago. These figures are, of course, less startling when they are laid beside the increase in our total national expenditure for research and development, especially in defense-related areas. Medical research expenditure, from all sources, is still only about 5 per cent of total research and development costs—it is, in fact, sobering to bear in mind that for each dollar spent to improve man's defenses against the inevitable onslaught of disease, so many more must be spent to improve his physical defenses against a possible onslaught by his fellow man.

Nevertheless, the money which the Congress now makes available to the medical research community through the N.I.H. represents a substantial proportion of the total income of most of the medical schools, university departments, hospitals, and other institutions whose research work it supports. The grant programs have greatly stimulated the time and effort expended on research, though this is rarely the sole function—and in most cases not the primary function—of the grantee institutions. Because of this stimulation and the consequent involvement in grant-supported research of so many faculty and staff members, these programs are having an impact on the institutions which N.I.H. must take into serious consideration as the field of biomedical research expands.

The National Institutes of Health has, in fact, reached another new stage in its steady evolution. As a result of the diversity of its categorical and disciplinary interests and the inescapable effects of its programming decisions on the activities of the grantee institutions, N.I.H. must now develop its plans not only in relation to the needs of individual investigators but also in relation to their cumulative impact on the institution.

I would emphasize that the highly successful individual research-project system will continue to remain at the heart of our grant programs. Nonetheless, we must be increasingly concerned about the over-all needs of the institutions at which the bulk of biomedical research is conducted.

The maintenance of a proper environment for high-quality work requires that the over-all activities of the university department, school, or hospital be soundly planned and intelligently administered by those immediately responsible for them. For this reason it is essential that the mechanisms through which research is supported be clearly designed to subserve the objectives, not just of N.I.H. but of the institution itself. A broad approach by the National Institutes of Health to major program planning is necessary to reserve to these institutions control over their own destinies while, at the same time, preserving the high quality which the research-grant program has attained. The future course of the N.I.H. must, I think, be charted in the light of this new aspect of its role.

I do not wish to give the impression that the National Institutes of Health should relinquish or in any way decrease its responsibility for planning the

*Director, National Institutes of Health. (In his opening statement before the Subcommittee on Appropriations of the House, in connection with the budget request of the National Institutes of Health for fiscal year 1962, Dr. Shannon discussed some of the new program directions brought about by the changing relationship between N.I.H. and the medical research community. The following pertinent excerpts will be of special interest to readers of *The Journal.*)

programs with which to carry out its mission, for the thorough review and conscientious assessment of the scientific merits of projects submitted for support, or for the meticulous stewardship of the public funds placed at its disposal. But an organization that accounts for 40 per cent of the total national expenditure on medical research must decentralize the decision-making process to the fullest extent commensurate with sound public administration and the requirements of law. If the research done by a medical school, a university department, a hospital, or other research organization is regarded as worthy of governmental support, its research administrators are also worthy of the Government's trust.

Four mechanisms have evolved during the past year or 2, or are proposed, to accommodate the changing relationship between N.I.H. and the research institution: These are:

1. The consolidation of small project grants into larger program-type grants; 2. the support of research centers; 3. the institutional grants program; and 4. a program for career-support for established investigators.

CONSOLIDATION OF SMALL PROJECT GRANTS

Over the past few years there has been a rising trend toward research projects defined in broad and general terms and assured of fairly extensive periods of support. Experience has shown that, with the necessary degree of administrative maturity in academic institutions, these larger grants are a highly productive means of supporting medical research. In line with this spontaneous development, it is intended, during the coming fiscal year, to urge institutions to consider the consolidation of existing research projects into larger projects which have a coherent central purpose relating to a disease entity, a broad scientific area of inquiry, or to a single scientific discipline. Proposals for the consolidation of existing grants will be at the discretion of the grantee institution and will only be considered after discussions with appropriate faculty members. Financial accountability will, of course, be maintained, and the proposed consolidated program must be relevant to the mission of the N.I.H. and have Council approval.

The consolidation of existing research projects will, I think, be an important step in the continuing improvement of the research project system. What will, in the long run, prove to be a much more significant trend in the evolution of the extra-mural program, however, is the development of several grant mechanisms that focus directly on the broad research needs of institutions rather than on the specific projects of individual investigators.

DEVELOPMENT OF RESEARCH CENTERS

The first major step in this direction was the initiation, in 1960, of long-term grant support for *clinical research centers*. The purpose of the program, in accordance with the wishes of the Congress, is to foster the creation of additional research resources for complex clinical investigations in a broad spectrum of diseases and involving a wide range of scientific disciplines and medical specialties. That this new program is meeting a widely felt and important need has already been amply demonstrated by the response of the medical schools.

The general clinical research centers have three important virtues: (1) they will give a large number of investigators access to a well equipped clinical research facility by creating more research beds and their attendant laboratories and by making the beds more readily available to investigators who have only short-term or intermittent need for patient facilities; (2) they will permit the "hot pursuit" of new research opportunities that occur as the result of a new

lead, a fresh idea, or the unexpected availability of a particular kind of research patient without restriction as to disease-category; and (3) they will strengthen the participating institutions by assuring them of a long period of support and by giving them wide latitude in the design of their research programs within the broad perimeters of the center grant.

The extension, in the 1961 appropriation, of the clinical research center concept to include categorical disease-oriented facilities seems well designed to serve both the need of grantee institutions for flexible support and the legal responsibility of the categorical Institutes to support research in specific disease areas. This is reflected in many of the applications for categorical center grants which describe the proposed center's research objectives in broad terms, project an interdepartmental and multidisciplinary research program and view the center as providing stable support for a long-term research plan, for additional salaried investigators and for underwriting the expense of complex research procedures. In fact, many of the conceptual and administrative difficulties to which this new program has given rise have been due to our perhaps over-cautious efforts to set up fairly rigid specifications for these categorical research centers. It seems clear that the program will best serve the research needs of the grantee institutions and thus promote the purposes for which it was conceived, if it is as flexibly administered as the intent of the Congress and the responsible management of public funds will allow.

Another step toward the creation and support of new research resources of national significance is, of course, the *primate centers program.* Construction of one such center, in Oregon, is nearly completed. The experience gained in launching this project—which is the first of its kind in the United States—is now being brought to bear on negotiations for the creation of two or three more of these regional resources. It may also be desirable to construct at least one center large enough to permit comparative studies on various species of primates, and the increasing difficulty of obtaining suitable primates for research suggests that it may at some future time become necessary to establish breeding colonies for certain species in this country.

It is my conviction that the center programs, collectively, promise to be one of the most effective mechanisms for the support of a vigorous national research effort and for marshalling the diverse skills and resources of the whole gamut of scientific disciplines and medical specialties into concerted attacks, not only on stubborn clinical problems but on the unsolved riddles that stand between our present pragmatic knowledge and a true understanding of the life processes.

Many of the most promising medical research frontiers lie in such basic fields as physical biology, molecular biology, biochemistry and virology. In fact, in the present state of the biological sciences, systematic genetic studies of the traditional fruit fly are more likely to find the real key to a host of congenital diseases than empirical experimentation in the clinics in which their human victims are treated. Medical research is so much more difficult—and often less productive—than research in the physical sciences simply because the biological sciences lack a systematic and coherent body of scientific law such as the physical sciences developed long ago. This is why it was possible to conceive and build an atomic bomb but is not yet possible to predict or prevent a heart attack.

As long as clinical research is circumscribed by the inadequacy of its fundamental conceptual framework, results will too often be dependent on lucky

accidents rather than systematic logical attack. Continuous, generous and enthusiastic support for the basic sciences underlying medical progress must be a cardinal point in our national policy for medical research.

INSTITUTIONAL GRANTS

The second new mechanism which is focused on the broad research needs of academic institutions was created by the Act authorizing the National Institutes of Health to make grants to medical, dental, and osteopathic schools, and schools of public health for the general support of their research programs.

We attach the highest importance to this, because it sets a pattern for support of medical research which frankly recognizes that it is in the national interest for the Federal Government to help meet the needs of academic institutions for general purpose research funds. I am confident that this approach to a basic problem in the universities' role in the conduct of research bodes well for the future of the cooperative effort which has already been of such substantial benefit to the people of this country.

CAREER RESEARCH PROFESSORSHIPS

The program for the long-term support of career research professorships was designed to increase the research capacity of the medical schools without restricting support to specific, discrete research projects. To a considerable degree, the sound development of research programs is limited by the lack of secure positions for competent investigators who wish to dedicate their career to research. An urgent need, therefore, is to provide means for enlarging the number of stable career opportunities within the tenure systems of universities and professional schools for research-oriented individuals. It is toward the solution of this urgent problem that the concept of the Career Research Professorship is directed. However, a review of the first group of nominations for these professorships, as well as limited consultations with medical school administrators and other advisors, indicates that the program, as now set up, may not be the most effective way to achieve the desired result.

One of the difficulties is that the emphasis on excellence in the present guidelines of the program implies that the award of one of these professorships constitutes formal recognition by the N.I.H. of the professional distinction of the recipient. This interpretation is not only undesirable in itself, but it tends to limit the nominations to senior faculty who already hold tenure positions. Moreover, the universities and other schools quite rightly insist that, as a minimum, it should be their prerogative to determine the title and institutional status of those given awards. They have also raised questions concerning the advisability of Federal selection of individuals to whom the institution must make a career commitment. We believe these to be valid considerations.

Therefore, though the problem is clear and the need is urgent, the development of mechanisms for this program must be considered at this point to be of an experimental nature.

An assessment of the needs of N.I.H. is, in a very practical sense, an assessment of the needs of the many individuals and institutions who together comprise the biomedical research community. More than that, it is also an assessment of the needs of the American people for more knowledgeable, more finely skilled, and more perceptive medical care. They are fortunate indeed that the task of making this assessment and acting upon it lies in such capable and sympathetic hands.

ABSTRACTS FROM THE WORLD OF MEDICAL EDUCATION

ANGELA SANCHEZ-BARBUDO, Ph.D.
Abstract Editor

Medical Education Needs Better Communication. JOSEPH C. HINSEY, M.D. New York State Journal of Medicine, Nov. 1 (pp. 3497-3504), 1960.

As a medical educator and administrator Dr. Hinsey, who is a Director of New York Hospital-Cornell Medical Center, expresses in this paper concern over the matter of communication. Medical centers, he says, have not succeeded so far in promoting a real understanding of their role in the advancement of patient care and public health through teaching and research. The "magic word" in capturing the interest of the public and the body politic has been, during the last years, *medical research*, which is often thought of in terms of dollars raised rather than in terms of trained people with ideas working with proper equipment. Thus, medical research has, regrettably, been separated from medical education and patient care. The fact is that expansion of research, since World War II, has been enormous. A survey of statistics shows that in 1957 a total of 330 million was spent for medical research in the U.S., proceeding from the following sources: philanthropy, 35 million (16 per cent); endowment, 19 million (6 per cent); government, 186 million (57 per cent); industry, 90 million (21 per cent). It must be regarded as highly significant that 50 per cent of this money was spent in universities and medical school laboratories, and more important still that most of the people carrying out research in the government and industrial laboratories have been trained in our universities and medical schools. The teaching centers are, therefore, the real keystone of the whole program of medical research in this country. In a report issued by Dr. Stanhope Bayne and his Committee (cf. *The Advancement of Medical Research and Education*, from the Office of the Dept. of Health, Education and Welfare, June 27, 1958), it is stated that the project to raise national medical research expenditures to a billion a year by 1970 is based on the assumption that the proportion of all research and development expenditure represented by medical research will remain constant. However, the report goes on to say that by 1970 "it would appear an additional 6,000 M.D.'s and/or Ph.D's will be needed if the nation's medical research program is to approximate the 1970 estimates." Furthermore, all the surveys indicate the need for a much greater supply of doctors to meet the health needs of the country in the years ahead. In this connection, the impact of the great expansion of research on medical teaching centers is examined by Dr. Hinsey. Many medical educators, he points out, have been disappointed at the failure of federal agencies and voluntary organizations to recognize their responsibility in supporting the *basic teaching programs* of medical schools which play such an essential role in the development of research staff as well as in advancement of research. It is the

task of the medical educators to communicate and emphasize that without adequate teaching "research will eventually die on the vine for lack of nourishment." Incomprehension of this essential fact and resulting conflicts are often due to a break-down in communication between administration and faculty. Also commented on in this paper are certain hazards which arise from governmental support of medical research, and from the "project grant" type. The greatest danger, in the author's view, is that a medical school might be thrown out of balance by concentrating large funds and capacities on one isolated field, thus interfering with the total program of the institution. A balanced program, however, which gives equal importance to the three principal obligations of a teaching center—teaching, research, and patient care—is one of the most essential needs in the whole field of medical education today.

Teaching the Gynecologic Basic Sciences. RUSSEL R. DE ALVAREZ, M.D. Obstetrics and Gynecology, Vol. 16, No. 3, pp. 382-386 (Sept.), 1960.

The question is raised whether the teaching of gynecology and obstetrics as a whole has kept pace with scientific investigation in general and whether it has even stimulated in the medical student a real interest in the basic concepts of gynecologic physiology and disease. Good teaching in this specialty is predicated upon the inclusion of simultaneous instruction in basic sciences within the department. To teach basic science in a department of gynecology a framework for the proper conduct of good basic research must be established. Discussed is also the question whether the product being turned out from our present education system in that field is too uniform; and, in view of modern concepts and trends in scientific pursuit, whether the traditional systems of teaching gynecology and obstetrics are not at present often directed toward the average and even the mediocre individual, resulting, in the end, in a "substandard" product? After the careful selection of the undergraduates the same effort should be made to attract the best minds from this reservoir into the field of gynecology. It is suggested that this may be done by placing highest priority on the presentation of the best educational material and by devoting special attention to curricula which meet the highest fundamental scientific standards. The teachers themselves, furthermore, must possess an academic background of such a nature as to stimulate the curiosity and interest of the student; faculties of departments of gynecology must be fully aware, and ready to assume, their role of teachers in a "graduate school of basic science," participating in the teaching of the science basic to gynecology. Criticized as "one great fallacy in medical school-teaching" is the tendency, often found in today's medical institutions, against the incorporation into clinical teaching of "basic science for basic science's sake." To provide the best teaching of basic gynecologic science the most effective way, as suggested by the author, would be that the instruction be carried out within the department by clinicians who are conversant with the methodology, terminology, theoretical knowledge, and application of a particular basic science. To attract such teachers should be a gynecology department's foremost job. At the same time, basic scientists from other departments should be called upon to consult and advise, through participation in seminars in clinical departments, in the special areas of investigation being studied in the department. The many problems and difficulties which may arise from initiating and carrying out such programs are

also discussed by Dr. Alvarez, who considers that his thesis—utopian though it may now appear—represents a logical path into which the modern programs of gynecologic teaching and research should be directed. Allowing that such ideas may not come to their full development in this generation, he does believe, nevertheless, that they are destined to reality within the next 50 years.

Education for Dermatology in the United States. MARION SULZBERGER, M.D. Archives of Dermatology, Vol. 82, No. 3, pp. 311-323 (Sept.), 1960.

In this presidential address to the American Dermatological Association (Boca Raton, Florida, April 8, 1960) the chairman of the Departments of Dermatology and Syphilology, New York University Medical Center, offers "some personal views on doctors, dermatologists, and dodos" (several cartoons illustrate these views). In spite of this seemingly light vein. Dr. Sulzberger discusses the fundamental problems of today's dermatologic training in the U.S. Dermatology, he asserts, means much more than just "medicine of the skin." It includes all the science and the art which can be applied to the study of the skin and all the knowledge which has been, is being, and will be garnered from it. Its two major objectives are: (1) to reduce the suffering caused by diseases principally afflicting the skin; (2) to investigate the skin and all phenomena which may affect, or may be affected by the skin, through every avenue which can lead not merely to a better understanding of skin diseases but also to the advancement of all medicine, biologic science, and of all human progress. The question is then examined whether American dermatology is preserving the essential balance in pursuing these two fundamental goals. While dermatologic research seems to be in steady progress, dermatologists must ask themselves whether they are giving the present generation—and the next—of sufferers from skin diseases the best that science has to offer in prevention and treatment. In dermatology, as in other fields, the many far-reaching and spectacular scientific successes achieved through research may have obscured the basic fact that new knowledge alone does not bring better health to our people. Yet whereas medical schools in this country are putting more and more emphasis on research, the attention and respect accorded to clinical teaching and clinical medicine seem to be diminishing. This is considered a dangerous trend which may lead some of our great medical schools to emphasize basic research and laboratory teaching to a point at which they may be encroaching upon the essential clinical instruction, thus upsetting the required balance and threatening to wreck the "happy partnership" between clinical teacher and clinical investigator, on the one hand, and teacher and research worker in the laboratory and basic science field, on the other. Dermatologists, the author believes, have a special if not unique obligation to do something to help maintain the correct trend in medical education. Among the suggestions of how to achieve this, the first is that dermatologists holding positions on medical faculties strive to command respect by their *clinical* as well as *basic science* knowledge and by being well rounded and competent clinical teachers of their own specialty. Dermatologic societies, furthermore, should take a vigorous stand against any encroachment upon the prerogatives of the clinician and should formulate and publicize standards for university and hospital departments in this field (as has been done, for instance, by the American Academy of Dermatology in 1958; cf., Sulzberger *et al.*, "Stand-

ards and Minimum Requirements for a Dermatologic Service . . .", *A.M.A. Arch. Dermat.*, 80:478 [Oct.], 1959). Before concluding his address, Dr. Sulzberger stresses the point that, far from wanting to reduce basic research, he is all for increasing research of this and every kind with all the means in our power, but increasing it only while establishing or maintaining the necessary balance between basic research and clinical teaching and investigation.

Medical Education and Television 1960—A Perspective on Advances in the United States. D. S. RUHE. Research Film, pp. 1-10, 1960.

Medical television in the U.S. has made great strides in the last 15 years, and major events can be foreseen which, in the near future, may bring great changes to medical life. Dr. Ruhe, a member of the University of Kansas Medical School, which has in the last 10 years participated in certain of the key developments in medical TV, surveys in this article the steady evolution of the "weaponry of television" for medicine's special purposes and needs. The medical environment, he points out, naturally dictates the modes of application of television to patient care, research, and education. Yet the "progressive giantism" of medical institutions in our time has created also the multiple hazards of "big administration," while the individualism of independent medical practitioners, which medical educators seek to inculcate into their students, is under constant "bombardment" from organizational pressures, including the mass media. The author predicts spectacular gains in television instrumentation in the near future, which, adding a new dimension to medical care, research, teaching and administration, will influence diagnosis down to the office level and teaching at every level. He warns, however, of the danger of university medical centers becoming before long overwhelmed by "the voracity of the cyclops" and stresses the importance of the task "to direct and manage the monster."

NEW BOOKS

KENNETH E. PENROD
Book Review Editor

Book Review

The Choice of a Medical Career. Essays on the Fields of Medicine. Edited by JOSEPH GARLAND AND JOSEPH STOKES, III. Philadelphia: J. B. Lippincott Company, 1961. 231 pp. $5.00.

In the preface the editors state: "This book consists of a series of original essays presenting the gradually acquired wisdom of a number of leaders in their respective fields. It is intended to convey to the student or the physician on the threshold of a medical career as complete a picture as possible of the profession to which he is dedicating himself and the opportunities that it represents. On the practical level it is intended to serve as a guide for the channeling of his life within that profession."

In all, the book consists of some 21 essays, each written by a physician well known in his field. On the average, each article is from eight to twelve pages long. Perhaps reflecting the ubiquity of the subject, or, more probably reflecting the enthusiasm of the author, the chapter on psychiatry is by far the longest.

The essays and their authors are as follows: "The Art and the Science" by C. Sidney Burwell; "General Practice" by Daniel M. Rogers; "Internal Medicine" by Chester M. Jones; "Pediatrics" by Joseph Stokes, Jr.; "Dermatology" by Clarence S. Livingood; "Neurology" by H. Houston Merritt; "Psychiatry" by John Romano; "Surgery" by J. Englebert Dunphy; "Orthopedic Surgery" by Carroll B. Larson; "Obstetrics and Gynecology" by Benjamin Tenney; "Urology" by J. Hartwell Harrison; "Neurosurgery" by William Feindel; "Ophthalmology" by Francis Heed Adler; "Otolaryngology" by Francis L. Lederer; "Radiology" by Fred Jenner Hodges; "Anesthesiology" by James E. Eckenhoff; "Occupational Medicine" by Harriet L. Hardy; "Physical Medicine and Rehabilitation" by Howard A. Rusk; "Administration and Public Health" by Leona Baumgartner and Robert E. Rothermel; "The Medical Sciences" by W. Barry Wood, Jr.; "Caritas Medici" by William B. Bean.

Each chapter is concluded with a bibliography of selected readings giving further insight into the nature of that field. Each chapter is a complete unit which makes possible "selective browsing." It would seem to make little difference whether this book is read in a series of a few minute pickups or at one sitting.

This book should be made available to all medical students. It will have the effect of broadening their perspective of fields of medicine to which they have been recently introduced and will perhaps have a stimulating influence on the career choice of many of them. In addition, college students currently contemplating the study of medicine will find the insight of the authors of these essays invaluable in providing stimulus for the furtherance of their medical interests. Furthermore, the mature physician will find much interesting reading in this book.

Abstracts

The Physiological Basis of Medical Practice. By CHARLES HERBERT BEST and NORMAN BURKE TAYLOR with 28 contributors. 7th ed. Baltimore: Williams & Wilkins Company, 1961. 1469 pp. $16.00.

This edition of this well known textbook is the most comprehensive and authoritative since the inception of the book 25 years ago. For the first time the authors have called upon others in the various fields of physiology for contribution. The entire section on circulation has been rewritten, mainly

by Dr. Donald E. Gregg. The section on respiration has been revised and rewritten, largely by Dr. W. B. Youmans. The section on excretion of urine has been rewritten by Dr. Robert W. Berliner. The section on digestion has been rewritten by Dr. Earl Thomas. The endocrine section has been redone by Drs. G. W. Harris and B. T. Donovan of the University of London. The nervous system has been rewritten by Sir Bryan Matthews of Cambridge and by Dr. Paul C. Bucy and Dr. W. C. North of Northwestern University. The section on special senses has been redone by Dr. E. N. Willmer of Cambridge, Dr. F. W. Campbell of Cambridge, Dr. J. E. Hawkins of New York University-Bellevue Medical Center, and by Dr. Taylor. The sections on blood and lymph and metabolism and nutrition have been revised and rewritten by various members of the staff of the University of Toronto. The literature references have been up-dated quite considerably.

Textbook of Medical Physiology. By ARTHUR C. GUYTON. 2d ed. Philadelphia: W. B. Saunders Company, 1961. 1154 pp. $15.00.

This is one of the few remaining textbooks of its size written in its entirety by a single author. Throughout the text the principles of control theory are discussed as they apply to specific body mechanisms, and much attention has been given to the interrelationships of functions of the different organ systems of the body. The formulation of such interrelationships and the presentation of physiology as a functional subject rather than as a descriptive subject can be far more fully realized in the opinion of the author in a singled authored textbook than in a multiple-contributor book. However, the material has been submitted to more than 120 different physiologists for opinions concerning approach, accuracy, completeness of coverage, etc., to enhance the value of the book. The second edition of this text has been almost entirely recast and rewritten. The subject matter has been brought up-to-date, and the majority of references are within the last decade and even include 1960. Many of the figures and illustrations have been redrawn. The references were chosen for their coverage of the specific subjects, their up-to-dateness, and also for their own bibliographies. By using both these references and cross references from them, it is the opinion of the author that a student can cover almost any phase of physiology easier than with the references used in most textbooks. The point of view of the student has been uppermost in the mind of the author throughout.

Shearer's Manual of Human Dissection. Edited by CHARLES E. TOBIN. 4th ed. New York: McGraw-Hill Book Company, Inc., 1961. 242 pp. $7.50.

The original purpose for this Manual is continued: to supply the inexperienced dissector with concise, specific directions for dissection procedures. In answer to the requests of numerous instructors, additional dissection procedures for the brain, eyeball, oral cavity, middle ear, and facial spaces of the head and neck have been added, but in accord with the basic plan all directions have been kept concise and clear. Terminology has been modernized, and most of the newer, more descriptive terms from the Paris Conference have been adopted. Whenever a new term is introduced, however, the old (BNA) term is also given so that the student may be familiar with both terminologies. The Manual is meant to be a compromise between the classical, lengthy texts and the very brief guides for dissection. Since this Manual is designed as an autonomous unit, it does not have to be used in conjunction with, or with reference to, any specific descriptive text in human anatomy. Most of the illustrations are the original ones made by Dr. Shearer for the first edition of this Manual. References to original papers have been cited only where descriptions in this Manual differ radically from those in the standard descriptive texts.

Essentials of Human Anatomy. By RUSSELL T. WOODBURNE. 2d ed. New York: Oxford University Press, 1961. 601 pp. $12.50.

In the second edition of this widely accepted textbook improvements have been made throughout. Some 75 figures have been altered and replated; ten of these have been enlarged in reproduction. Additionally,

a number of new illustrations now replace certain less satisfactory figures. A striking feature of this addition is the inclusion of ten full color plates illustrating central anatomical features of each region of the body. Recent advances in anatomical literature have been incorporated, and descriptive improvements characterize many pages of the book. The binding has been improved, and a stronger cover is provided in this edition. As with the first edition of this text, the basic concepts of the systems of the body are examined in detail, then regionally. Within each region, the order of presentation is from superficial to deep—the only order in which the body can conveniently be dissected. This is not an elementary text. Its brevity comes from an adherence to the essentials of morphology presented functionally and concisely. This book has recognized and emphasized more than any other text or revision the advances in anatomy made in the last 50 years. The style and organization are such that the students can use the book to much advantage.

An Introduction to Functional Histology. By GEOFFREY H. BOURNE. 2d ed. Boston: Little, Browne & Company, 1960. 256 pp. $8.50.

Like the first edition, this book is designed to deal with histology more from a functional than a structural point of view. The volume is intended to supplement existing textbooks and is therefore not complete in itself. In the section on technique, only the more recent methods, particularly those dealing with enzymes, have been included. The book should form most useful supplementary reading for graduate students in biological sciences. Those in biochemistry especially might find it useful in helping to correlate their work with the structure of cells, tissues, and organs. It should likewise be useful to medical and dental students as well as histological and pathological technicians.

Cell and Tissue Culture. By JOHN PAUL. 2d ed. Baltimore: Williams & Wilkins Company, 1960. 307 pp. $7.50.

This second edition, coming as it does only 1 year after the first edition, is an indication of the widespread use of this text. In this edition the contents have been increased by some 20 per cent, mainly due to continued development of cell culture techniques rather than the addition of more material. The main addition is a new chapter on transplantation techniques which are so closely related to explantation techniques that treatment of the subject in a systematic manner seemed warranted. Also the chapter on growth and metabolism of cultured cells has been rewritten and expanded. Some extra material has been added to almost every other chapter. One or two of the old illustrations have been omitted, and several have been redrawn. The text also includes thirteen new line drawings, five new plates, and four new tables.

Surgical Diseases of the Chest. Edited by BRIAN BLADES with 18 contributors. St. Louis: C. V. Mosby Company, 1961. 571 pp., with 267 illustrations. 571 pp. $22.00.

This book is written not only for surgeons, but also for medical students and medical practitioners who are interested in what can be accomplished in various diseases by thoracic surgery. Some emphasis has, therefore, been given to the selection of patients for surgical intervention and to the differential prognosis for various conditions in which the selection and timing of surgical treatment may be controversial. Although operative techniques are not entirely neglected, only the essential technical principles for reasonably standardized operations are included. More detailed descriptions are undertaken for newer operations not described in older textbooks. Developments in cardiovascular surgery are described with appreciation of the difficulties in keeping abreast in this rapidly expanding field, not only in surgical techniques, but also in the extremely important refinements in the diagnosis of diseases of the heart and blood vessels. A chapter is devoted to methods of maintenance of extracorporeal circulation with full knowledge that the material might have to be entirely revised within a short period of time. Preoperative preparation and postoperative care are described in a way which is meant to be useful to the general medical practitioner. With few ex-

ceptions, the contributors were selected on the basis of two attributes: original and important contributions and wide clinical experience. Each has written in his own style with emphasis on the aspects of the subject which seem most important to him.

Clinical Toxicology. By C. J. POLSON and R. N. TATTERSALL. Philadelphia: J. B. Lippincott Company, 1959. 583 pp. $10.00.

This book is intended primarily to describe the clinical features of poisoning in the home. Industrial and toxicological analysis are adequately described by others and therefore have been avoided wherever possible. A complete account of all known poisons has not been attempted. The scope has been restricted to the common poisons and those which, although uncommon, have practical importance; a few others have also been included because of personal interest in them. No rigid plan has been followed, since not all the poisons described allow the same approach. In the main, however, the account of each is introduced by a general statement, and the relative importance of the poison is shown by reference to incidence of cases. Possible sources of the poison are then discussed, followed by an account of circumstances in which the poisoning may occur. The lethal dose is given. Clinical manifestations, treatment, and prognosis are considered in detail, and the post-mortem finding are also described. The bibliography is selective but it includes most, if not all, of the principal references. The book is intended for all, but in particular physicians whose concern is clinical toxicology.

Radiation Protection and Dentistry. By ARTHUR H. WUEHRMANN. St. Louis: C. V. Mosby Company, 1960. 225 pp. $6.50.

This booklet, one of the Postgraduate Dental Lecture Series, is designed to acquaint the practicing dentist with the mysteries as well as dangers of radiation. It is the author's hope that the practitioner of dentistry will find this book understandable and helpful and that he will use this information to the advantage of society. The author is himself a dentist and a member of the faculty of the University of Alabama School of Dentistry. The coverage of the book is wide, from fundamental effects of radiation on matter to its legal aspects.

Clinical Use of Radioisotopes. A Manual of Technique. Edited by THEODORE FIELDS and LINDON SEED with 18 contributors. 2d ed. Chicago: Year Book Publishers, Inc., 1961. 462 pp. $10.50.

In the first edition of this book, published in 1957, the editors purposely selected from among the multitudinous variations those procedures which they considered to be most representative of the techniques giving the most accurate results in their experience. The chapters were assembled from specialists and edited for consistency of purpose and form. In the present edition many changes have been made. The authors have added, subtracted, and modified early sections to conform with modern nuclear medical practice. Sections on thyroid scanning, liver, and gastrointestinal function tests have been added. Sections on ascitic fluid volume and AEC regulations have been eliminated. The balance of the chapters have received major alterations in line with accepted practice.

Abnormal Psychology. Mental Illness: Types, Causes, and Treatment. College Outline Series, Number 94. By WALTER J. COVILLE, TIMOTHY W. COSTELLO, and FABIAN L. ROUKE. New York: Barnes & Noble, Inc., 1960. 284 pp. $1.75. Paper back.

This Outline presents a descriptive and interpretative summary of the field of abnormal behavior beginning with a discussion of the differences between the abnormal and the normal, tracing the history of man's effort to understand deviations in behavior and analyzing current theories which attempt to explain the development of personality and the causes of mental illness. The Outline is not exclusively oriented toward any one school of thought, although the principal theoretical orientations are summarized objectively. In preparing this Outline, the authors had in mind its usefulness not only to the college student but also the general reader as well as practi-

tioners in the field of personnel, teaching, law, social service, religion, nursing, and the medical specialties. They hope that for these groups it will provide a ready compendium of accurate and up-to-date factual material about human behavior. In their study of abnormal behavior, the authors have followed the most recent classification system of the American Psychiatric Association. A comprehensive treatment is given to such specific topics as psychosomatic disorders, epilepsy, mental deficiency, psychotic and neurotic reactions, mental hygiene and the diagnostic and therapeutic processes.

Haemopoiesis: Cell Production and Its Regulation. Ciba Foundation Symposium. Edited by G. E. W. WOLSTENHOLME and MAEVE O'CONNOR. Boston: Little, Brown & Company, 1960. 466 pp. $11.00.

The Sixtieth Ciba Foundation Symposium was held February 2–4, 1960, and was attended by 27 participants, under the general chairmanship of Professor J. M. Yoffey. Discussion was devoted to the most recent findings in the field of haemopoiesis. The discussions printed in this book cover numerous problems being confronted by researchers in the field and suggestions for new areas to be probed are made.

Transactions of the American Neurological Association, 1960. Edited by MELVIN D. YAHR. New York: Springer Publishing Company, Inc., 1960. 298 pp. $8.00.

This volume constitutes the record of the 85th annual meeting of the society held in Boston, June 13–15, 1960. It contains the presidential address and papers read and discussed as well as a complete list of membership.

Education for Nursing—A History of the University of Minnesota School. By JAMES GRAY. Minneapolis: University of Minnesota Press, 1960. 231 pp. $5.00.

The University of Minnesota School of Nursing was established in 1909. It was the first University school; it led in developing scientific literacy for the nurse; it has pioneered much of the specialization in nursing; it has provided world-wide leadership; it has experimented in new programs for nursing. In 50 years curriculum-development teaching and planning has provided a corps of quality nurses whose influence has pervaded all the continents. As experimentation in nursing and program development was basic in the first half century of the School of Nursing the closing pages of this book reveal that experimentation and change will be implicit in the planning for the next 50 years. This book has value for all interested in education and the professions.

The Future of the Human Mind. By GEORGE H. ESTABROOKS and NANCY E. GROSS. New York: E. P. Dutton & Company, 1961. 242 pp. $3.95.

In this book the authors reveal many unusual and provocative cases of the extraordinary powers of the human mind and explore the numerous ways they can be sharpened and put to use in the future. Numerous aspects of psychology, including time distortion, memory stimulation, the conscious and unconscious mind, tapping the subconscious mind for creative purposes, mind-body relationships and psychosomatic medicine, electronic brains or computers, and the paranormal and extrasensory perception are all new and fascinating keys to the wonders and mysteries of the mind explored in this book. The focus of the book is a study of the potential powers of the mind in the light of recent scientific discoveries.

Beloved Professor. Life and Times of William Dodge Frost. By RUSSELL E. FROST. New York: Vantage Press, 1961. 338 pp. $3.75.

Dr. Frost (University of Wisconsin) was among the first bacteriologists outside of the medical schools in the United States. From 1895 to 1938 he taught more than 5,000 students, who are now scattered all over the world. He is best known for his work in the field of tuberculosis and his pioneering work in milk bacteriology. This chronology of his life was prepared by an intimate associate—his son.

Medical Entomology. By WILLIAM B. HERMS and MAURICE T. JAMES. 5th ed. New York: Macmillan Company, 1961. 579 pp. $12.50.

The original manuscript for this book is now over 50 years old. The book has been in continuous print since 1915. The fifth edition has been revised by Dr. James who in general has attempted to follow the late Dr. Herms's plan of presentation. Some material has been reduced or deleted in order to strengthen the more purely technical entomologic aspects of the work without increasing its size. The addition of some keys and anatomic material will serve to broaden the usefulness of the text, particularly in application to laboratory work. The veterinary aspects have been further reduced. Stress continues to be placed on biology as fundamental to rational control and as basic to sound epidemiological procedures. Owing to the vast changes that have taken place in this field since the last edition of this text in 1949, much of it has been entirely rewritten.

Dynamic Psychiatry in Simple Terms. By ROBERT R. MEZER. 2d ed. New York: Springer Publishing Company, Inc., 1960. 162 pp. $2.75.

The prime object of this soft-bound book since its first edition in 1956 has been to help people understand psychiatry. The object everywhere has been to get at the basic principles of what might be called "dynamic psychiatry" and present them in easily understandable terms, taking only a few liberties with theory and details as appear necessary to maintain simplicity. The following are some of the advances in psychiatry which are now reflected in this book: (1) The general adoption of the terminology that is based on the Diagnostic and Statistical Manual of the American Psychiatric Association. (2) Drug therapy —the tranquilizers and the antidepressants —has come into its own. The results in state hospital statistics are now well known. (3) Socio-legal progrers has been made in the treatment of criminals and in the laws regulating the commitment of the mentally ill.

Nebraska Symposium on Motivation, 1960. Edited by MARSHALL R. JONES. Lincoln: University of Nebraska Press, 1960. 257 pp. $3.25 (paper); $4.25 (cloth).

The current work is Volume 8 in the series in "Current Theory and Research in Motivation." The formal papers presented at this conference were Ecology and Motivation, by Roger G. Barker; Toward an Information Processing Theory of Motivation, by Donald W. Taylor; On the Periodicity of Motivation, by Walter Toman; Competence and the Psychosexual Stages of Development, by Robert W. White; The Gestalt Theory of Motivation, by Fritz Heider; and On the Psychoanalytic Theory of Motivation, by David Rapaport.

Letters to My Son. By WENDELL J. S. KRIEG. Evanston, Illinois: Brain Books, 1960. 82 pp. $3.00.

This small, pocket-sized book by Dr. Krieg, Professor of Anatomy at Northwestern University Medical School, isn't really a series of letters to his son. In a wider sense, these are letters to sons who are contemplating the research-academic career; to graduate students and young workers, who are often spiritual sons of their chief; and to the older boys, who may match them with the philosophy they have developed about their vocation. The letter form was chosen as the best vehicle for the intimate and avuncular style for talking to young men choosing between the practice of medicine and an academic career. The twelve "letters" comprising this book were originally published in the journal *Postgraduate Medicine.*

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Research in the Service of Medicine SEARLE

MEDICAL EDUCATION NEWS

from the Medical Schools

Alabama

Dr. JAMES O. FOLEY, professor of anatomy at Alabama, died March 1. A medical educator for 30 years, Dr. Foley taught at Tulane University School of Medicine, Oregon State College, and at the University of Wisconsin before becoming professor of anatomy and chairman of the department at the Medical College of Alabama in 1947. In 1951, he was named associate dean of the college.

Baylor

A curricular change which will allow more time for elective choice in the third and fourth years of medical education, has been approved by Baylor University College of Medicine and will go into effect in June 1961, according to a recent announcement.

At that time half the third-year class will start on a 9-week clerkship in medicine. In September, the other half of the class will begin its clinical clerkship in medicine. For each group the remaining clerkships of the third year will be in the fields of medicine, pediatrics and psychiatry. The fourth year will afford 18 weeks of surgical clerkship and 9 weeks of obstetrics and gynecology.

The new plan will permit the students to spend as much as 27 weeks in elective study during their two clinical years in medical school. There is to be a single rotation among the clinical fields instead of two rotations as provided in the existing schedule.

According to a Baylor spokesman, the departure from the standard clinical curriculum will afford students not only a better clinical experience, but also more flexibility in their program of studies.

Boston

Dr. JAMES M. FAULKNER, former chairman of the Joint Administrative Board of the Boston University-Massachusetts Memorial Hospitals Medical Center and former dean of the Boston University School of Medicine, has been named director of the Medical Center. Dr. Faulkner has been acting director of the Medical Center since the resignation January 1, 1961 of Dr. CHESTER S. KEEFER, now a university professor and president of the American College of Physicians.

Buffalo

Dr. IRVING HYMAN, neurology department chairman at the University of Buffalo Medical School and chief of neurology at Buffalo General Hospital, died March 7 at age 52.

Chicago Medical

Dr. JOHN C. LEE has joined the Chicago Medical School faculty as associate professor of psychiatry. He comes to the Chicago Medical School from the University of Illinois where he was clinical assistant professor of psychiatry.

U. of Chicago

A combination of posts constituting a newly created medical executive position has been created at the university and named to the position is Dr. WRIGHT R. ADAMS, a member of the medical faculty for 31 years. He will serve as associate dean of the Biological Sciences, dean of the clinical faculty, and chief of staff of The University of Chicago clinics. Dr. Adams, professor of medicine, has served since 1949 as chairman of the department of medicine, the largest of the Division's

academic departments. Dr. LEON JACOBSON will be acting chairman of the department until Dr. Adams' successor is named.

Dr. F. HOWELL WRIGHT is returning to research, clinical work and teaching after serving 15 years as chairman of the department of pediatrics. He will continue to serve on the faculty as professor of pediatrics.

Cincinnati

Maj. Gen. CLEMENT F. ST. JOHN, commanding general of the Walter Reed Army Medical Center, Washington, D. C., will be the University of Cincinnati's vice president and director of the Medical Center. He will also have the title of professor of hospital administration. General St. John's retirement from the Army climaxes a 31-year military career at Walter Reed. His command there totals 2600 officers and enlisted personnel and 2900 civilian employees. He expects to assume his new post by June 1.

Studies in chronic diseases and occupational hazards will be instituted in a specialized graduate training program by UC's Institute of Industrial Health. The Institute is an activity of the Kettering Laboratory in the College of Medicine.

Dr. JOHN J. PHAIR, professor and director of the university's division of preventive medicine, stated the graduate program will begin immediately and will be open to physicians and qualified nonmedical personnel. The Public Health Service has granted $135,000 to support the program for 4½ years. This is a part of the PHS's program to increase and broaden the teaching of epidemiology and biostatistics, and UC's project is believed to be the only one in the nation to concentrate primarily on occupational hazards, Dr. Phair said.

Cincinnati's first fellowship in allergy has been made possible by an annual grant of $5000 from the Gerber Baby Foods Fund, Fremont, Mich. The grant, which has initiated a residency program in allergy at the university, is part of Gerber's national program to encourage education and research in nutrition. The new program encompasses work in both the department of pediatrics, under Dr. A. ASHLEY WEECH, and the department of medicine, under Dr. RICHARD W. VILTER. Dr. I. LEONARD BERNSTEIN, Dr. JOSEPH E. GHORY and Dr. LOUIS KREINDLER, supervise the program.

The program has been accredited by the Subspecialty Allergy Board of the American Board of Internal Medicine and will qualify trainees to take the Subspecialty Board of Pediatric Allergy examinations.

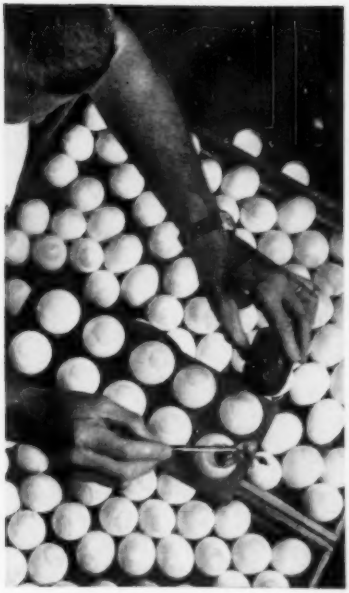
Colorado

The University of Colorado Medical Center was notified by the U. S. Surgeon General's office recently of the approval of a seven-year grant of $1,809,129 for expanded research programs in allergy, immunology, and infectious diseases.

Awarded by the NIH, the grant will provide for establishment of a clinical research center at the university's Medical Center. The program will be under the direction of Dr. DAVID W. TALMAGE, professor of medicine and microbiology, and head of the division of allergy in the department of medicine.

Dr. DAVID M. GOULD, chairman of the radiology department, died April 2 in Colorado General Hospital of a heart attack. He was 48 years old. Dr. Gould joined Colorado's medical staff in 1959, coming to Denver from the University of Arkansas Medical Center, where he had held a similar position since 1956.

The Medical Center was given a $300,000 per year cancer research and patient care grant recently by the Eleanor Roosevelt Cancer Foundation. In addition, the Foundation pledged $750,000 toward the Center's planned $16.8 mil-



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RABIES VACCINE (DUCK EMBRYO)

Dried Killed Virus

averts hazards of "paralytic factor"

Rabies vaccine of duck-embryo origin was developed by Eli Lilly and Company to eliminate the "paralytic factor" present in vaccine made from brain tissue (Semple vaccine). All conventional vaccines of brain origin contain myelin, believed to be the causative factor in rabies treatment paralysis. Duck embryos contain little or none of the "paralytic factor." Also, local reactions observed during clinical studies[1] were fewer and milder than those usually encountered with vaccine made from brain tissue.

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Clinically, it has been shown that rabies vaccine of duck-embryo origin produces antibodies more rapidly than does the Semple vaccine.[2]

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Duck-embryo rabies vaccine gives excellent recall in persons previously immunized with Semple vaccine.[3]

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1. J. Lab. & Clin. Med., 45:679, 1955. 2. J.A.M.A., 173:333, 1960.
3. New England J. Med., 263:1058, 1960.

148000

lion expansion program. The $750,000 would be used to add a floor to the proposed CU laboratory and to install 20 cancer patient facilities in the proposed 425-bed hospital.

Columbia

The Columbia-Presbyterian Medical Center received a gift of $1 million recently from the Charles Ulrick and Josephine Bay Foundation. It will be used to provide and equip a floor in the new research building planned as part of the institution's $50 million building and endowment program. Construction of the new building is expected to get under way early next year.

The College of Physicians and Surgeons has voted to continue its 112-year association with Bellevue Hospital, but it will study a proposal to affiliate also with Harlem Hospital.

Harlem is one of New York's ten city hospitals without affiliation with any university teaching program.

Dartmouth

The W. K. Kellogg Foundation of Battle Creek, Mich., has granted the Dartmouth Medical School $500,000 to build a teaching auditorium next to its new medical science building. Dean S. MARSH TENNEY said the projected amphitheatre-type auditorium would seat about 350. It will house the newest audio-visual equipment and other teaching aids for lectures, demonstrations, and conferences, he said.

Duke

The Medical Center has established a new international scholarship program which will enable British medical students to visit Duke for three-month periods of study.

The scholarship will be financed jointly by the British Medical Student Association, the Duke chapter of the Student American Medical Association, and the Duke Medical Center. According to Dr. BARNES WOODHALL, dean of the medical school, the scholarship is "an effort to promote exchange of ideas between our medical students and those of other countries." The first recipient will visit the center during the 1961-1962 academic year. He will spend three months studying a clinical subject such as surgery, medicine, pediatrics, psychiatry or obstetrics.

Albert Einstein

A gift of $1 million has been made to the College of Medicine of Yeshiva University and it will be used to establish a David and Irene Schwartz Pavilion when its new University Hospital is built. The gift is the first major contribution to the $27.5 million development program of the university's medical school.

The donor was David Schwartz, an overseer and founder of the Albert Einstein College of Medicine, to which he and Mrs. Schwartz gave its psychiatry research wing in 1959.

Harvard

A $500,000 gift for the establishment of a professorship of radiology has been awarded Harvard University by the American Cancer Society and its Massachusetts Division. By means of the gift, Harvard will create the Alvan T. and Viola D. Fuller-American Cancer Society Professorship of Radiology. The new chair was made possible, on a permanent, full-time basis, by a contribution to the Cancer Crusade by the Fuller Foundation.

Illinois

The College of Medicine has been awarded $128,000 for a two-year study and evaluation of its over-all program in medical education by the Commonwealth Fund of New York City. The grant provides for a full-time staff which

a new book of vital interest

A PRELUDE TO MEDICAL HISTORY

by FELIX MARTI-IBAÑEZ, M.D.
Editor-in-Chief of the Medical Newsmagazine, MD; Professor and Chairman, Department of the History of Medicine, New York Medical College

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ON THE SPOKEN WORD

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will enable the administration and faculty to carry out an intensive study of scientific teaching methods, advance instruction in patient care, and development of a permanent program of educational research.

Kansas

Dedication of the Medical Center's new $750,000 Kansas City Field Station-Communicable Disease Center drew several government officials to the ceremonies April 5. Dedicatory address was delivered by JOHN E. FOGARTY, congressman from Rhode Island and chairman of the House of Representatives sub-committee concerned with appropriations for health, education, and welfare, with Dr. JOHN D. PORTERFIELD, deputy surgeon general of the Public Health Service, presiding.

The 3-story building was erected on the campus of the UK Medical Center for lease to the federal government.

Mayo

The American Heart Association "bought" for life, the services of researcher Dr. EARL H. WOOD, professor of physiology at the Mayo Foundation Graduate School. It was the tenth in the association's so-called "career investigatorships."

Dr. Wood is known for his work in the use of dyes as an aid in diagnosing ailments of the heart and circulatory system. The award to Dr. Wood goes into effect on July 1.

The Mayo Foundation Graduate School is losing three of its long-time faculty members through retirement this year. Dr. PHILIP W. BROWN, associate professor of medicine, and Dr. JESSE L. BOLLMAN, professor of physiology, retired April 1, each having served 38 years on the staff; Dr. ROGER L. J. KENNEDY, professor of pediatrics, is retiring after 34 years of service. Dr. Bollman took over the position of director of research for the Rochester State Hospital upon his retirement.

Nebraska

Dr. HENRY M. LEMON has been named director of the Eugene C. Eppley Institute for Research in Cancer and Allied Diseases at the College of Medicine. Dr. Lemon comes to the university from Boston University School of Medicine where he is associate professor of medicine and coordinator of cancer teaching. His appointment becomes effective September 1, at which time he also will become professor of internal medicine and assistant dean for research affairs at the College of Medicine.

New York Medical College

Dr. JOSEPH T. VELARDO has been named professor and chairman of the department of anatomy. Dr. Velardo, who is now assistant professor of anatomy at the Yale University School of Medicine, will assume his new post July 1. He succeeds Dr. J. CLIFFORD HAYNER, who becomes professor emeritus in residence at the college.

New York University

Post-doctoral specialization in the field of environmental health is now being offered by the Institute of Industrial Medicine, New York University Medical Center, under a Public Health Service training grant. The program is designed to prepare persons with doctoral degrees in medicine, the medical sciences, or one of the basic sciences for research and teaching careers in this field. The school is inviting applications from those who have recently completed their professional doctoral training, as well as those who have had some experience in the field and wish additional training. Inquiries should be directed to Dr. NORTON NELSON, professor and chairman, Institute of Industrial Medicine, 550 First Avenue, New York 16. N.Y.

North Carolina

Dr. KENNETH M. BRINKHOUS, chairman of the department of pathology, won the O. Max Gardner Award recently as the member of one of the faculties of the Consolidated University of North Carolina who, during the current scholastic year, "has made the greatest contribution to the welfare of the human race." In recognizing Dr. Brinkhous' achievements, the trustees of the university noted that "he has built his department from an obscure department of five persons in 1946 to a department of some 70 people in 1960."

North Dakota

Dr. HARLEY E. FRENCH, former dean at the University of North Dakota School of Medicine, died February 4, at age 87. Dr. French began his teaching career 54 years ago at the University of South Dakota, moving to North Dakota in 1911, where he became dean of the medical school and professor of anatomy. He remained in this position until 1947.

Dr. French was an emeritus member of the Association of American Medical Colleges.

Oregon

To help provide greater educational opportunities for medical students and to give improved care to its patients, the Portland Speech and Hearing Center has selected the Oregon Medical School as its site for a new 2-story building. The $80,400 building will include office and clinic space, in addition to hearing and testing facilities. Construction is planned for next year.

Rochester

The John and Mary R. Markle Foundation has awarded a grant of $200,000 to aid the University of Rochester Medical Alumni Association's fund drive for expansion of the Edward G. Miner Medical Library. The grant brings the drive to within $100,000 of its $500,000 goal.

Plans for expanding and remodeling the library include construction of a three-level addition to the present library. The addition will more than double present library space, which has been substantially unchanged since the medical school opened in 1925.

Southern Calif.

The two newest buildings of the university's school of medicine will be dedicated May 24. Taking part in the ceremonies is Dr. JOSEPH C. HINSEY, director of The New York Hospital-Cornell Medical Center.

The structures, costing more than $3 million, are a six-story Seeley Wintersmith Mudd Laboratory of the Medical Sciences, and McKibben Hall, a two-story instructional building. They stand on USC's 12-acre medical campus near the 3600-bed Los Angeles County General Hospital, where USC does its clinical teaching.

Stanford

Dr. DAVID A. HAMBURG will become professor and executive head of the department of psychiatry on August 1. He is now chief of the Adult Psychiatry Branch of the National Institute of Mental Health, Bethesda, Md.

OLIVER E. DEEHAN has been named administrator of the Palo Alto-Stanford Hospital Center. Deehan succeeds Dr. E. DWIGHT BARNETT, who resigned last June. He has been acting administrator since then. The hospital is the major patient care facility in the Stanford Medical Center, which also includes the Stanford University School of Medicine.

S.U.N.Y. (Upstate)

The State University of New York Upstate Medical Center is completing its first year as sponsor of a Boy Scout Explorer Post for high school boys in-

terested in the medical sciences. As far as is known, according to a university spokesman, this is the first such post to be sponsored by a medical center. The university feels it holds real promise for recruiting future physicians and basic medical scientists. Dr. DAVIS JOHNSON, assistant dean, is the institutional representative of the Explorer Unit.

Tennessee

A 3-year residency program for doctors wanting to specialize in plastic surgery has been approved at the Tennessee Medical Units. A new department in plastic surgery is being set up in the division of surgery, which will include research. Dr. ANTHONY P. JEROME, assistant professor of surgery, will direct the new department. Dr. HARWELL WILSON is chief of the division. The program is expected to get under way by the first of next year.

Vanderbilt

Dr. ROBERT W. NOYES of the Stanford University School of Medicine, has been named head of the obstetrics and gynecology department at the Vanderbilt School of Medicine. He will assume his new duties October 1.

Dr. Noyes, will succeed Dr. FRANK E. WHITACRE, who recently resigned as head of the department after eight years of service to become chief of obstetrics and gynecology at Nashville General Hospital. Whitacre retains his full professorship on the Vanderbilt faculty.

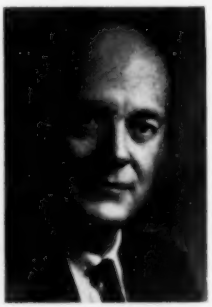
Noyes has been at Stanford since 1951 and is now associate professor of obstetrics and gynecology.

Wisconsin

An Artificial Kidney Unit has recently been established at the University Hospitals and will operate under the supervision of the department of medicine. A Rennebohm Foundation grant provided the funds to purchase the artificial kidney machine and other instruments and equipment required for this procedure. Training of personnel assigned to this project has been carried out in the Cardiovascular Research Laboratory. The units will be operated under the supervision of Dr. A. B. WEINSTEIN, assistant professor of medicine.

Toronto

Dr. JOHN D. HAMILTON, professor and head of the pathology department, has been named dean of the Faculty of Medicine. He will succeed Dr. J. A. MACFARLAND, who has been dean since 1946. Dr. MacFarland has been appointed chairman of the university's newly-created Medical Science Advisory Council, which will advise on medical research on the campus.



JOHN D. HAMILTON

Dr. Hamilton was graduated in medicine from the University of Toronto in 1935. He continued his studies at Cambridge University and Johns Hopkins Hospital, in both places combining teaching and research in pathology.

He joined the staff of McGill University in 1945. A year later he was appointed professor and head of the pathology department at Queen's University. He moved to the same position at Toronto in 1951. Since then, he has been appointed pathologist-in-chief at the Toronto General Hospital; consultant pathologist to the Hospital for Sick Children, Sunnybrook Hospital, Women's College Hospital and the Ontario Department of Health, and this year was appointed consulting pathologist and acting head of the division of pathology, department of laboratories, Toronto General Hospital.

From the National Institutes of Health

NIH Budget Request Totals $583 Million Plus for 1962

Officials of the National Institutes of Health, led by Dr. James A. Shannon, NIH director, last month presented to the Congress testimony in support of the NIH budget request for fiscal year 1962, beginning July 1, 1961.

The request was for an appropriation of $583 million, exclusive of $4.6 million for construction at NIH and $30 million for research facilities construction grants to non-Federal institutions.

The bulk of the funds requested are allocated to the grants and training area which would receive a total of $466.7 million. This represents an allocation of $333.5 million for research grants, $96.2 million for training awards, $22 million for fellowships, and $15 million for state control activities and community demonstrations. The requested funds also include $116.3 million for direct NIH activities, including $64.1 million for research. The remaining direct operation funds would be spent for chemotherapy contracts, review and approval of grants and training awards, administration of the Biologics Standards program and other NIH intramural activities.

The NIH total is part of the Public Health Service request for $1.1 billion, which is included in the Administration's request of $4 billion for the Department of Health, Education and Welfare.

The presentations were made to the subcommittee of the House Committee on Appropriations which handles Labor, Health and Welfare appropriations, headed by Rep. John E. Fogarty of Rhode Island. Other members of the subcommittee are Winfield H. Denton, Indiana; Fred Marshall, Minnesota; Melvin R. Laird, Wisconsin; and Robert H. Michel, Illinois.

Bibliography on Laboratory Animals Now Available

Scientists at the University of Cincinnati have completed an annotated bibliography on laboratory animals which will help satisfy the needs of research personnel who depend on laboratory animals for their progress. Authors are Jules Cass, Irene Campbell and Lilli Lange. The work was supported by an NIH grant.

The bibliography, in three parts, appears as a supplement to the December 1960 issue of *Federation Proceedings*, published by the Federation of American Societies for Experimental Biology and Medicine.

In bringing together previously scattered and hidden publications on procurement, maintenance, use, and intrinsic characteristics of the representative species used for scientific and medical research, the bibliography will aid researchers concerned with the states of biological organization and disorganization that occur naturally in living systems, and those concerned with the social implications and useful modifications of such states, such as research clinicians and administrators.

Councils Meet in November; Application Deadline July 1

July 1 is the deadline for research and training applications to be considered at the series of NIH National Advisory

Council meetings scheduled for November 6 through December 2, 1961.

The Councils, representing areas of research supported by grants from each of the seven Institutes comprising NIH, meet three times a year at Bethesda, Md., to review requests from scientists in universities and other non-Federal institutions. Grant awards are made by the Surgeon General, U. S. Public Health Service, upon recommendation of the Councils, whose memberships include outstanding leaders in medicine, science, education, and public affairs.

Study sections will meet September 5-30, 1961, to screen grant applications. Those approved by the study sections will be sent to the appropriate Council for final review and action.

Schedules of Council meetings are: Allergy and Infectious Diseases—Nov. 27-29; Arthritis and Metabolic Diseases —Nov. 30-Dec. 2; Cancer—Nov. 20-22; Dental—Nov. 6-8; Health—Nov. 20-22; Heart—Nov. 18-20; Mental Health—Nov. 30-Dec. 2; Neurological Diseases and Blindness—Nov. 27-29.

Reorganization to Speed Research Grants Operations

Recent reorganization of the Division of Research Grants into eight separate branches headed by the Office of the Chief, is expected to expedite processing of grant applications in vital research areas.

Important changes in the structure of the Division include the creation of a new Research Grants Referral Branch, to be responsible for assigning all grants applications to the appropriate areas for further review; combination of the old Research Fellowships Review Branch and the Training Office to form a new Career Development Review Branch; and renaming the Center Grants Review Office as the Special Programs Review Branch, charged with reviewing applications for clinical centers and for other types of multidisciplinary and multicategorical programs.

The other branches in the reorganized Division are: Research Grants Review, Grants Management, Internal Operations, Health Research Facilities, and Statistics and Analysis. Their functions remain largely unchanged.

Appointments

Dr. Carl G. Baker has been appointed Associate Director in Charge of Program of the National Cancer Institute. He moves up from his former position as NCI's assistant director. In his new position he will work closely with NCI Director Kenneth M. Endicott in coordinating major programs of the Institute, dealing with extramural advisory committees on major problems and policy matters.

Dr. C. Gordon Zubrod has been appointed Director of Intramural Research, National Cancer Institute. Clinical Director of the Institute since 1955, Dr. Zubrod will now assume general direction of both clinical and non-clinical research.

Dr. Nathaniel I. Berlin has been appointed Clinical Director of the National Cancer Institute, succeeding Dr. C. Gordon Zubrod. Since 1956 he has been in charge of the Metabolism Service, General Medicine Branch of NCI.

Dr. Thelma B. Dunn, head of the Cancer Induction and Pathogenesis Section of the National Cancer Institute's Laboratory of Pathology, has been elected president of the American Association for Cancer Research, Inc. She is the first woman in the history of the association to hold this post. Dr. Dunn began her career with NIH in 1942 as a research fellow. Prior to assuming her present post in 1950, she served first as a pathologist and later as medical officer in the Laboratory of Pathology.

Items of Current Interest

Navy-A.M.A. Medical-Dental TV Reference Now Available

Latest information on closed circuit television as an educational tool now is offered in manual form by the American Medical Association.

The Medical-Dental TV Reference, originally published for the 1960 Television Workshop at the National Naval Medical Center, in revised form has been republished by the Department of Medical Motion Pictures and Television of A.M.A. as a service to the medical and dental professions.

Designed for easy addition of new information as it becomes available, the present edition is bound in a loose-leaf binder. The manual, which will be valuable to educators in the dental and medical fields planning to incorporate television as a teaching method as well as to others interested in achieving greater effectiveness in present installations, contains the following sections:

General television orientation—information on planning and equipment.
Presentation techniques—methods for using TV in general instruction as well as in specialized teaching and clinical demonstrations; how to use artwork and illustrative material.
Engineering theory—technical enough to acquaint reader with the complexities of equipment operation and maintenance yet simple to understand.
Utilization reports—how television has been employed as a teaching mechanism in 14 different medical and dental schools; and in Great Britain.
Abstracts of articles—complete collection of abstracts of articles on medical and dental television covering the period 1953-1960.
Reports on new developments—final "open end" section sketching briefly latest developments in technical areas of TV, such as selection of lenses to be used and video tape recorders; contains complete list of references to additional publication on this subject.

The manual, which already has attracted widespread interest, was compiled and edited by Commander Edward W. Baird, Television Project officer; Donald A. Connolly, Director of Television Instructional Research, and Donald R. Millbranth of the National Naval Medical Center.

Copies of the Medical-Dental TV Reference are available from the A.M.A. Order Department, 535 N. Dearborn Street, Chicago 10, Ill., at $3.00.

Helen Hay Whitney Foundation Announces Awards

The Helen Hay Whitney Foundation announces recent appropriations made by the Board of Trustees in the total sum of $395,576 for support of eleven 3-year Research Fellows, one 1-year Research Fellow, two 5-year Established Investigators, and for extensions to two current Research Fellows.

Applications are now being accepted for 1962-1963. Information and application forms may be secured by writing to the Executive Secretary, 525 East 68 Street, New York 21, N.Y.

Medical Educators Advisors for VA

Seven medical educators will advise the Veterans Administration on its nationwide medical research program, as members of the newly constituted VA Research Advisory Committee.

Chairman of the committee is Dr. HAROLD WOLFF, Anne Parrish Titzell professor of neurology at Cornell Medical College.

Members are Dr. CHARLES G. CHILD, chairman of the surgery department at Michigan's Medical School; Dr. I. ARTHUR MIRSKY, professor and chairman of the department of clinical science at the Pittsburgh School of Medicine; Dr. HARRY M. ROSE, chairman of the department of microbiology at Columbia's College of Physicians and Surgeons. Also, Dr. EUGENE A. STEAD, chairman of the department of medicine, Duke Uni-

versity School of Medicine; Dr. ELIOT STELLAR of the Institute of Neurological Sciences at the School of Medicine, University of Pennsylvania; and Dr. STAFFORD L. WARREN, dean of the University of California at Los Angeles School of Medicine.

The committee represents a consolidation of three groups which advised the VA on its medical research at the national level. These were the previous Advisory Committees on Research, on Radiobiology and Radioisotopes, and on Problems of Aging.

Dr. MARC J. MUSSER, director of the VA Research Service in Washington, D.C., said the consolidation was made in recognition of the fact that research in radiobiology and radioisotopes and in aging have become inseparable from medical research in general.

Air Force Names Bohannon Deputy Surgeon General

Dr. (Major General) RICHARD L. BOHANNON, head Air Force surgeon with the Pacific Air Forces for the past three years, will become Deputy Surgeon General, U. S. Air Force, in June.

As USAF medical officer in the Pacific Far East area, Dr. Bohannon supervised the administration and operation of 14 Air Force hospitals and dispensaries at bases throughout Japan, Korea, Okinawa, Taiwan, and the Philippines.

Passano Foundation Award for 1961

The Board of Directors of the Passano Foundation announces that Dr. OWEN H. WANGENSTEEN has been selected as the recipient of the $5000 Passano Award for 1961.

On June 28, during the convention of the A.M.A. in New York City, a reception and dinner will be held at the Statler-Hilton Hotel to honor Dr. Wangensteen.

Dr. Wangensteen is professor of surgery at the University of Minnesota Medical School.

Useful information for both medical educators and students is published by the Association of American Medical Colleges. These publications may be obtained from the Association Headquarters office, 2530 Ridge Avenue, Evanston, Illinois.

BOOKS AND PAMPHLETS

Admission Requirements of American Medical Colleges—1960-61 ($2.00).
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PERSONNEL EXCHANGE

Faculty Vacancies

PREVENTIVE MEDICINE: Full-time appointment, with epidemiologic orientation desired for teaching program with opportunities for research participation and development. Some background in public health or community organization desirable. Interest in teaching should be primary. Rank and salary based on qualifications and ability. Address, Jonas N. Muller, M.D., Chairman, Department of Preventive Medicine, New York Medical College, Fifth Avenue at 106th Street, New York 29, N. Y.

PATHOLOGISTS-TRAINING OR STAFF POSITIONS: Expanding Medical Center, new physical plant. Opportunities for future academic, service, or research positions. Reasonable stipends based on individual qualifications. Contact Dr. E. G. Stuart, West Virginia University Medical Center, Morgantown, West Va.

PHARMACOLOGIST: Positions open on medical school faculty for July 1, 1961. Rank of instructor or assistant professor, depending on qualifications. Teaching responsibilities limited to nursing students and small medical classes. Active graduate training program. Facilities available for independent research program. Address: Dr. Frank C. Ferguson, Jr., Dept. of Pharmacology, Albany Medical College, Albany 8, N. Y.

PHYSIATRIST: To assume direction of department of physical medicine and rehabilitation of Mount Sinai Hospital, with teaching responsibilities at affiliated Chicago Medical School. Affiliated with Rest Haven Rehabilitation Hospital. Will also be consultant to affiliated Homes for the Aged. Challenging opportunity for a Board Qualified or Board Eligible Physiatrist interested in developing a complete program including a residency in P M & R. Apply: Director, Mount Sinai Hospital, Chicago 8, Ill.

PSYCHIATRIST: Faculty appointment in medical school for psychiatrist, preferably with experience since residency. Must be interested in clinical teaching of residents and students. Time available for own treatment of inpatients or outpatients, also for research. Laboratories available, also personal and didactic analyses and opportunities for full psychoanalytic training locally. Unique opportunity to join an active and established department with unlimited opportunities. Salary competitive. Address: V-109.

PREVENTIVE MEDICINE: Full-time appointment, at associate, or full professorial level depending upon qualifications and ability, to head up an established, ongoing department of postgraduate education with opportunities for teaching and research participation and development in the department of preventive medicine of a university medical school. Some background in preventive medicine or administrative medicine is desirable. Salary around $14,000 plus fringe benefits. Address: V-110.

OBSTETRICIAN-GYNECOLOGIST: Board eligible or Board certified obstetrician-gynecologist for full-time assistant or associate professorship in well established university department. Salary based on training and experience. Modern physical plant with research building. Adequate clinical material and opportunity to develop areas of personal interest. Send curriculum vitae. Address: V-111.

INTERNIST: To direct Pulmonary Disease Section of a large general hospital closely affiliated with medical school. Faculty appointment. Broad clinical, research, and teaching opportunities. Active Pulmonary Function Laboratory. Contact: Chief, Medical Service, V.A. Hospital, Albany, N. Y.

MEDICAL SERVICES DIRECTOR: To have full charge of all medical and surgical activities for Kern County General Hospital System, under administrative direction of Hospital Administrator; direct and coordinate medical services, supervise operation of intern and resident teaching programs. M.D. degree from approved medical school, approved internship, completion of approved residency and three years experience in practice of medicine, two years of which must have been in teaching or supervisory capacity. Certification by an American Board. California M.D. license. Salary $15,228 to $18,504 annually. Write to: C. Leon Bryson, Kern County General Hospital, 1830 Flower St., Bakersfield, Calif.

RADIOLOGIST: To assist staff radiologist in operation of X-ray department at Kern General Hospital including supervision of technical employees, assisting in resident physician training. Active department. Possession of valid license to practice medicine in California required; certification or eligibility for certification by American Board of Radiology is desirable. Salary $11,928 to $14,508. Write to: Kern County General Hospital, 1830 Flower Street, Bakersfield, Calif.

MEDICAL EDUCATION DIRECTOR: Board Certified or comparable to requirements for Board Certification to direct an approved internship and residency program. Two hundred sixty-six bed community hospital with medical school affiliation in University City. Write and include curriculum vitae: Arthur V. Crandall, Administrator, Brackenridge Hospital, Austin, Texas.

EPIDEMIOLOGIST: A newly established, full-time faculty position now available. Candidates with medical degree preferred. Background and experience in epidemiology and biostatistics required: background in infectious disease studies with overseas field experience desirable. Duties will include organizing and directing training program in epidemiology and biometrics at a World Health Training Center now under development at this medical school. Opportunities will be available for field studies at overseas base. For further information, contact George Entwisle, M.D., Chairman, Department of Preventive Medicine and Rehabilitation, University of Maryland School of Medicine, Baltimore 1, Md.

MEDICAL EDUCATION COORDINATOR: Progressive general hospital in East desires full-time M.D. to coordinate expansion of educational program for interns and residents; educational potentialities unlimited; abundant service patients; 40 Boarded specialists representing all fields; research program contemplated; cardiac catheterization under development. Address: Paul G. Wedel, Administrator, The Williamsport Hospital, 777 Rural Avenue, Williamsport, Pa.

BACTERIOLOGIST: University Hospital has a vacancy for a medically qualified bacteriologist. Appointment also carries a university teaching position. Salary $10,000-$14,000 per annum. Applicants should have hospital experience. Applications stating date of birth, qualifications, experience, present appointment, and the names of three references should be sent to the Director of Bacteriology, University Hospital, Saskatoon, Saskatchewan, Canada.

MEDICAL TECHNOLOGIST: ASCP Registered medical technologist (female) with Bachelor's degree and 2 years experience to work in curriculum of medical technology, department of pathology. Position is chiefly assisting in administration and teaching. Salary open, dependent upon qualifications. Reply: Dr. J. F. Kuzma, Director of Department of Pathology, Marquette University School of Medicine, Milwaukee 3, Wisc.

MEDICAL LIBRARIAN: University desires Medical Librarian at an initial salary of $6,500. The successful candidate will receive faculty status equivalent to that of departmental chairman in the Faculty of Medicine. Duties will include full responsibility for the administration of the Medical Library. Minimum qualifications must include the Medical Library Association Grade I certificate, or its equivalent, with some experience in library administration. Applications should be addressed to the Chief Librarian, Macdonald Memorial Library, Dalhousie University, Halifax, Nova Scotia.

To aid in solution of the problem of faculty vacancies, MEDICAL EDUCATION will list persons and positions available, as a free service. The school department or person may have the option of being identified in these columns or of being assigned a key number for each position listed. Mail addressed to key numbers will be forwarded to the person or department listing the request.

Information for these columns should reach the Personnel Exchange, Journal of Medical Education, 2530 Ridge Avenue, Evanston, Illinois, not later than the 10th of the month which precedes the month in which the listings will appear.

Personnel Available

PEDIATRIC CARDIOLOGIST: Age 39, qualified for examination by American Board of Pediatric Cardiology. Now full-time, desires half-time university appointment. Catheterization laboratory necessary. Address: A-474.

PHYSICIAN-PHYSIOLOGIST: M.D., Ph.D. Age 50. Extensive experience in cardiopulmonary research, clinical and laboratory; teaching and administration; numerous publications; research grants. Desires position with responsibility to develop research and teaching program. Address: A-476.

PHYSICIAN: M.D., D.P.H. Extensive experience in epidemiological research, teaching and administration in academic and health department settings. Published articles; book in preparation. Seeks senior university appointment offering opportunities in broad field of preventive medicine. Address: A-477.

INTERNIST: M.D., Ph.D. Currently Assistant Professor of Medicine with administrative and teaching responsibility for attending and house staff and medical students on large medical service. Active, well-supported, independent research program. Training includes NIH and the University of Chicago. Numerous publications. Desires geographic full-time position or equivalent in medical school or affiliated hospital with facilities for expanding both clinical and laboratory aspects of research program. Address: A-478.

INTERNIST: Certified; also certified in cardiovascular disease. Experience in medical school teaching as assistant professor at student, intern, resident and practicing physician level. Desires full-time position in teaching or community hospital and/or medical school. Address: A-479.

INTERNIST-CARDIOLOGIST: Board certified. Age 35. One year training in clinical cardiology and one year in cardiovascular laboratory — Harvard and Mayo Clinic. Now university instructor in England, returning shortly to U.S. Interested in practice, teaching, director of medical education. Address: A-480.

PATHOLOGIST: Age 56. Voluntarily retiring as professor and department head, University Medical Center, July 1, 1961. Twenty years teaching experience. Thoroughly experienced in service work. Desires position as teacher combined with service work, preferably surgical pathology. Address: A-481.

PATHOLOGIST—ADMINISTRATOR: Pathologist with excellent full-time academic background in administration, medical education, research and service responsibilities. Experience includes professorship and chairman department of pathology, development of research, curriculum, teaching methods, services, and coordinated medical school activities. Extensive publications. Desires teaching position with opportunity to aid in development. Eastern location preferred. Address: A-482.

INTERNIST: Certified. Age 35. Currently on faculty of Eastern medical school. Experience in private practice and administrative medicine. Desires appointment in teaching hospital and/or medical school with opportunities for clinical research in cardiovascular disease, teaching and administrative responsibilities. Address: A-483.

PSYCHIATRIC SOCIAL WORKER: Female, M.S., personal psychoanalysis. Three years experience in delinquency problems. Current appointment in medical school involves participation in clinical and teaching program in department of psychiatry. Desires similar position or other psychiatric clinical appointment. Southern California preferred. Available July 1, 1961. Address: A-484.

INTERNIST: Age 34, single, male. Currently on faculty of British Colonial medical school. Postgraduate training in clinical medicine and research. Experience in cardiac catheterisation and haemodynamic investigations; also in life insurance medicine and some private consultative practice. Numerous publications. Desires faculty appointment or fellowship with opportunity for cardiological investigation. Address: A-485.

OBSTETRICIAN-GYNECOLOGIST: Age 35. PBK. AOA. Desires head administrative appointment in medical school or affiliated hospital, with opportunity to develop department. Ability in creative research, teaching, and operative gynecology. Institution must allow to be earned or pay a minimum of $30,000. Address: A-486.

SURGEON-THORACIC: Age 34. Currently engaged in thoracic surgery residency training which includes all phases of pulmonary resectional surgery. Wide experience in heart surgery. Desires full-time medical school appointment, balanced between teaching, research, and dog laboratory research. Address: A-487.

MICROBIOLOGIST: Ph.D. Many years experience in clinical bacteriology and mycology. Excellent background in parasitology and virology. Well qualified in many phases of public health microbiology. Medical school and A.S.C.P. teaching experience as well as administrative responsibilities. Publications. Desires challenging appointment in medical school. Address: A-488.

ANATOMIST: Ph.D. Male, age 43. Fifteen years teaching experience. Currently assistant professor teaching neuroanatomy and gross anatomy in school of medicine and dental medicine. Also experienced in histology and physiology. Trained in educational methods and testing. Desires opportunity for teaching and research in anatomy department or in a correlated pre-clinical medical program. Address: A-489.

OBSTETRICIAN-GYNECOLOGIST: M.B.B.S., India, F.R.C.S. Canada, university trained in U.S., immigrant to U.S. Desires teaching position, department of obstetrics and gynecology of a hospital with active educational program. Address: A-490.

MEDICAL PHOTOGRAPHER: A.B., age 35. Ten years experience in medical photography (including 7 years with Veterans Administration). Special training in photomicrography. Fluent knowledge of German. Desires position with medical school and or hospital affiliated with medical school. Good references. Resumé and references on request. Address: A-491.

PHYSIOLOGIST-PHARMACOLOGIST: M.D., age 31. Desires research position in the fields of neurophysiology or neuropharmacology. At present, postdoctoral fellow in Eastern medical school. Address: A-492.

PHYSIOLOGIST: Ph.D., assistant professor. Long-term research program with staff of four based on

continuing large NIH grants. Basic and clinical aspects of endocrine physiology. Major physiology teaching responsibilities and experience. Seeks associate professorship in physiology. Address: A-493.

PHARMACOLOGIST: M.D., Punjab University, India. Age 27, married, one child. Publications, *Ind. J. Med. Sc.* and *J. Am. Pharm. Assn.* Presently research assistant, department of pharmacology, University of Agra. Desires position with U.S. medical school with opportunity for post-doctoral study. Address: A-494.

PSYCHIATRIC SOCIAL WORKER: M.A., University of Chicago School of Social Service Administration. Desires position as teacher of psychiatric social work to medical students. Twelve years experience as chief psychiatric social worker in two medical schools. Address: A-495.

BIOPHYSICIST-PHYSIOLOGIST: Ph.D., MS EE, wishes faculty appointment, teaching and research. Publications, books. Areas of research interest—bioelectric studies, origins of congenital heart disease, biomedical engineering. Address: A-496.

PHYSIOLOGIST-PHARMACOLOGIST: Ph.D., faculty member of medical school. Teaching experience. Research in endocrine physiology and pharmacology of endocrine preparations. Publications and Society memberships. Desires teaching and/or research position with opportunity for independent research. Address: A-497.

MICROBIOLOGIST-IMMUNOLOGIST: Research and teaching experience in bacteriology and parasitology. Presently on medical school faculty. Desires faculty appointment appropriate for qualifications with opportunity for independent research. Would also consider a position in a medical foundation or in a City, County, or Federal Institution affiliated with a medical school. Address: A-498.

PREVENTIVE MEDICINE-PUBLIC HEALTH: Physician with M.D., Dr. P.H. degrees desires senior teaching position on medical school or public health school faculty. Numerous publications. Previous research, teaching, administrative and health department experience. Special interests are epidemiology, preventive medicine, and biostatistics. Address: A-499.

INTERNIST: M.D., M.S. in Med. Certified. Age 46. Wishes to abandon lucrative private practice of 18 years for full-time (or half-time) medical school appointment that includes teaching, OPD, and hospital practice. Extensive clinical experience and original publications in psychosomatic medicine. Capable of organizing and heading a psychosomatic division that will integrate general medicine and psychiatry. Address: A-500.

ANATOMIST: Ph.D. (Anatomy) March 1961. M.S. in Zoology and B.S. in Biology. Age 39, married, child. Presently teaching biology in midwest. Prefers return to anatomy since Ph.D. completed. Twelve years full-time teaching experience, including four in anatomy (histology, embryology, gross, comparative, and neurology). Publications. Research interests in histochemical aspects of mammalian development; program in progress. Prepared to contribute to graduate research training programs. References. Address: A-501.

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1. The Composition of Milks, Publication 254, National Academy of Sciences and National Research Council, Revised 1953.
2. Brown, G.W.; Tuholski, J.M.; Sauer, L.W.; Minsk, L.D., and Rosenstern, I.: J. Pediat. 56:391 (Mar.) 1960.

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